# **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.







# UNITED STATES DEPARTMENT OF AGRICULTURE LIBRARY



BOOK NUMBER

1 W37Un 1936

ROBBITVE

GP3 8-7671

Reserve

W37Un

LIBRARY
RECEIVED

NOV151938 &
U. S. Department of Agriculture



# UNITED STATES DEPARTMENT OF AGRICULTURE WEATHER BUREAU

# UNITED STATES METEOROLOGICAL YEARBOOK

1936



Issued as the Report of the Chief of the Weather Bureau prior to 1935

UNITED STATES GOVERNMENT PRINTING OFFICE WASHINGTON: 1938



ASSESSED THE ASSESSED ASSESSED

# METERICATION STATES METERICAL METERI

0801



In the Second of the City of the month on a built on a



# **FOREWORD**

Prior to 1935 this publication constituted the statistical sections of the Annual Report of the Chief of the Weather Bureau. The practice of publishing annual meteorological statistics in a separate volume, entirely disassociated from the Annual Report of the Chief of the Weather Bureau, was inaugurated in 1935 to avoid some duplication in printing but primarily to make printed meteorological matter more accessible to the public and to conform with similar publications of foreign nations.

The discussions and statistics presented herein concern principally the climatological phase of meteorology. Statistical data relating to the work of all the Divisions of the Weather Bureau are published currently in the Monthly Weather Review. From time to time special articles, based on the statistical data collected by the several Divisions of the Bureau, appear in the Monthly Weather Review and its supplements.

J. P. Kohler, Editor.

Extremes for the year were well within the previous records of -66° (Riverside Ranger Station, Yellowstone Park, Wyo., February 1933) and 134° (Greenland Ranch, Calif., July

1913)

Temperatures of 100° or higher occurred in 45 States; in Maine, Vermont, and Rhode Island, the maximums for the year were 96°, 97°, and 94°, respectively. The highest maximum for the year was 126° on August 6 at Greenland Ranch, Calif.; in 1935 the yearly maximum was 123° on July 13 at Cow Creek also in California. The lowest temperature for the year was -60° on February 15 at Parshall, N. Dak. For the preceding year the lowest was -51° on January 23 in Crow Wing County, Minn.

Temperatures of freezing or below occurred in every month of the year and in every State at some time during the 12 months. July brought minima of freezing or below to several States, the lowest for the month being 26° recorded in California, New Mexico, and Oregon. August brought similar minima to several States and the lowest of record for the month in the State of New Mexico, 25°, was equalled on the 26th at Therma, elevation 8,219 feet. Minima of zero or lower occurred in all States, except Louisiana and Florida, at some time during the 12-month

period. In many States minima of  $-20^{\circ}$  or below were reported. Table 2 shows that for the United States, as a whole, precipitation during the year 1936 averaged 1.7 inches below normal. In 7 of the 21 climatological divisions, the annual rainfall was above normal, the Florida section being the relatively wettest with a plus departure of 11.4 inches; also, excesses were quite pronounced in the New England, Middle, and South Atlantic districts. The remaining divisions averaged below normal precipitation; decidedly deficient shortage of rainfall prevailed in the north-central Plains and interior Valley regions. On a monthly basis only 4 months, January, February, September, and December, were wetter than normal while for the period from March to August, inclusive, rainfall was consistently below normal.

Table 2.—Precipitation departures, monthly and annual, 1936

[Compiled from tables entitled "Climatological data for Weather Bureau stations" contained in the 12 issues of the Monthly Weather Review during 1936]

Districts	Janu- ary	Febru- ary	March	April	May	June	July	August	Septem- ber	Octo- ber	Novem- ber	Decem- ber	Sum
New England Middle Atlantic South Atlantic	+2.4 +2.7 +2.0	-0.5 2 +.7	+2.6 +1.3 +1.9	+0.3 .0 +1.9	$ \begin{array}{r} -1.4 \\ -1.3 \\ -2.4 \end{array} $	+0.8 +.1 -1.1	$ \begin{array}{c c} -1.4 \\ -1.3 \\ +.5 \end{array} $	-0.3 4 4	+0.5 +.3 +.4	+0.4 .0 +2.2	-1.5 -1.3 6	+3.5 +1.7 +1.8	+5. 4 +1. 6 +6. 9
Florida Peninsula East Gulf West Gulf	+.8 +4.8 -1.7	+3.1 +1.8 -1.4	+1.5 -2.4 -1.3	8 +2.0 8	+.8 -1.4 +2.7	+6.1 $-2.5$ $-1.9$	+1.6 +1.1 +1.4	+1.6 .0 -1.5	$ \begin{array}{c c} -2.3 \\ -1.2 \\ +1.8 \end{array} $	-1.1 3 5	$ \begin{array}{c c}1 \\ -1.0 \\ -1.0 \end{array} $	+. 2 +. 6 . 0	$+11.4 \\ +1.5 \\ -4.2$
Ohio Valley and Tennessee Lower Lakes Upper Lakes	7 6 +.2	7 1 .0	+.5 +1.7 7	+.1 .0 4	-2.1 -1.5 8	$ \begin{array}{c c} -2.5 \\ -1.2 \\ -1.9 \end{array} $	-1. 2 -2. 4	9 6 +.8	+. 2 +. 8 +1. 4	+1.0 .0 .0	1 -1.1	+.3 6 +.3	$ \begin{array}{r} -4.8 \\ -3.4 \\ -4.6 \end{array} $
North Dakota Upper Mississippi Valley Missouri Valley	1 2 +.2	+.3 .0 5	+.2 3 -1.3	-1.2 -1.0 -1.3	-1.7 -2.2 8	$ \begin{array}{r} -2.5 \\ -1.9 \\ -2.7 \end{array} $	$ \begin{array}{c c} -1.8 \\ -2.6 \\ -3.1 \end{array} $	$ \begin{array}{c c} -1.2 \\1 \\ -2.0 \end{array} $	4 +2. 7 +2. 1	9 1 6	3 7 8	2 +. 7 +. 3	-9.8 -5.7 -10.5
Northern Slope Middle Slope Southern Slope	.0 1 +.1	+.3 6 6	1 8 4	5 -1.6 4	-1. 2 +. 5 +2. 0	6 -2. 1 -1. 0	5 -1. 9 -1. 0	3 -1.1 -1.6	5 +2. 0 +2. 5	.0 .0 6	4 9 7	.0 .0 4	$ \begin{array}{r} -3.8 \\ -6.6 \\ -2.1 \end{array} $
Southern PlateauMiddle PlateauNorthern Plateau	1 1 +.8	+.3 +1.1 +.3	3 2 4	3 6 5	1 8 8	2 +.3 +.4	+.3 +.7 +.2	4 +. 2 . 0	+.8 2 2	.0 +.3 9	1 5 -1.3	+.1 +.4 6	.0 +.6 -3.0
North Pacific Middle Pacific South Pacific	$\begin{array}{c c} +2.1 \\ +1.0 \\ -1.6 \end{array}$	4 +3. 6 +3. 5	-1.0 -2.3 8	-1.4 +.2 3	+1.0 2 4	+1.3 +.4 .0	+.3 +.1 .0	1 .0 +.1	-1.1 6 1	$ \begin{array}{c c} -2.9 \\ -1.2 \\ +1.3 \end{array} $	-5.5 -3.4 8	7 9 +2.8	-8. 4 -3. 3 +3. 7
United States	+.6	+.5	1	3	6	6	5	4	+.4	2	-1.0	+.5	1 -1.7

<sup>&</sup>lt;sup>1</sup> Sum of 12 monthly values.

The snowfall for the 12 months of the year based on State figures averaged predominately in excess of normal values in practically all States. Only a few States in the lower Mississippi Valley and New York, Delaware, New Jersey, and southern New England averaged below normal. Negative departures, as a rule, were of small magnitude. Idaho averaged 79.2 inches for the year; Colorado 75.3; Utah 74.7 (third greatest annual snowfall since State-wide records began) Wyoming 67.5; Minnesota 65.9, and Montana 59.6 inches. The greatest plus departure from normal was 24.1 inches for the State of Utah. In the more Eastern States, northern New England averaged 89.4 inches, departure from normal +7.6; southern New England 43.0, -3.8; New York 65.7, -2.7; and Pennsylvania 50.1 inches, departure from normal +0.8 inch. The remaining Atlantic Coast States, also the east Gulf States, had above-normal snowfall, plus departures generally being in the neighborhood of 3 to 5 inches, though North Carolina received the second greatest average snowfall of record, 19.8 inches or 11.3 inches above normal.

The year's weather was not so evenly disposed as the mean values in tables 1 and 2 indicate; instead the weather of 1936 was characterized by marked extremes in temperature and precipitation. During January and February unparalleled, prolonged periods of subzero temperatures, together with abundant snowfalls, obtained in the northern and central interior States. In March heavy rains in the Northeastern States, augmented by the melting of heavy snowcover, produced floods which incurred damage amounting to many millions of dollars. Many States in the New England district reported excess monthly precipitation values in excess of normal by 12 to 13 inches. Pinkham Notch, N. H., received 23.86 inches. The following month (April) witnessed the occurrence of severe windstorms and two series of destructive tornadoes in several Southeastern States. The remaining spring months and summer months through August brought on the most severe, widespread drought since State-wide records began. A detailed discussion of the record-breaking temperatures prevailing in the Midwestern States and the distribution of precipitation will be found in the monthly discussion of weather which follow, also in the discussion of the 1936 drought on page 17. Meteorological conditions in the closing months of the year, aside from heavy rains in September over the southern Plains States, tapered off without any marked deviation from normal conditions which so strongly characterized the preceding 8 months.

Comparative annual data.—Greatest station annual precipitation reported, 127.19 inches, at Big Four, Wash., elevation, 1,748 feet. Highest maximum temperature reported during the year was 126°, occurring on August 6, at Greenland Ranch, Calif. Other near-maximum temperature values were 125° on July 17, also at Greenland Ranch, Calif., and 124° on June 21, at Cow Creek, Calif. Lowest minimum temperature for the year was  $-60^{\circ}$ , occurring at Parshall, N. Dak., on February 15; on the same day two stations in Montana had minima of  $-59^{\circ}$  each, and on the

17th of February, McIntosh, S. Dak., recorded a minimum of  $-58^{\circ}$ .

Section averages (annual basis).—The highest section mean temperature was 71.0° for Florida (departure from normal,  $+0.2^{\circ}$ ); the lowest section mean temperature was  $38.8^{\circ}$  for North Dakota (departure from normal,  $-0.5^{\circ}$ ). The greatest section average annual rainfall was 60.65 inches for Alabama (departure from normal, +6.78 inches). North Carolina, with an annual rainfall for 1936 amounting to 60.28 inches (departure from normal, +10.61 inches), exceeded any previous years' totals since State-wide observations were begun in 1887. The total rainfall, 58.23 inches, for South Carolina, was the third greatest of record; southern New England, with 51.70 inches, noted the second greatest rainfall of record; and northern New England, with an average of 48.68 inches, amounted to the third greatest of record. One State in the West, namely, Utah, with an annual rainfall averaging 16.97 inches (departure from normal, +4.08 inches) noted the second greatest rainfall of record since the commencement of State-wide observations. North Dakota averaged the lowest section annual rainfall with a total of 8.83 inches (departure from normal -8.26 inches); it was also the lowest State annual rainfall of record for North Dakota. Two other States, namely, South Dakota and Kansas, received the least rainfall of record since State-wide observations were begun; the respective amounts were 10.93 inches (departure from normal, -8.07 inches); 18.31 inches (departure, -8.43 inches). The State annual precipitation averages were second lowest of record in Minnesota and Missouri, and third lowest of record in Nebraska and Oklahoma.

Maximum temperatures, highest of record, were broken in 15 States during the months of July and August, and in 3 other States, the highest maximum temperatures of record were

equaled.

During the year, 1,124 stations reported at least 1 month with no precipitation, and 119 stations had a month with totals of less than 0.01 inch. The greatest monthly total was 29.97 inches, at Bowman Dam, Calif., in February.

# **JANUARY**

The mean January weather of 1936 from the standpoint of temperature was the resultant of two definite and decided trends over the greater part of the country. In order of time, the first trend (warm) prevailed from the 1st to near the 15th in the north-central and Great Plains States and progressively longer in the regions east and southeastward; up to the 18th and 19th in the Ohio Valley and Tennessee, and generally as late as the 20th in the middle and South Atlantic States. During this period, abnormally mild weather prevailed in the Central and Eastern States.

The second and more persistent trend (cold) followed the previous warm trend quickly and decidedly, and continued practically unabated in most sections during the remaining days of January. Conditions were most severe in the northern portions of the Great Plains States and the upper Mississippi Valley and to a lesser extent in the middle Mississippi and Ohio Valleys. In North Dakota, January 1936, was the third coldest month in the climatic history of the

State. Many stations in the eastern division reported the lowest minimum temperatures ever recorded and some stations reported minimum temperatures below zero on all days and maximum temperatures below zero on most days. Similar conditions prevailed in South Dakota. Temperatures were below zero constantly, except for some southwestern stations, after the middle of the month, ranging from  $-20^{\circ}$  to  $-30^{\circ}$  on several days over the southern half and lower than  $-30^{\circ}$  in the northern half—in all making the month the fourth coldest since records began in 1890. With two exceptions, January 1912 and 1929, the month in Minnesota averaged the third coldest of record. At Minneapolis-St. Paul the first week of the third decade was the coldest 7-day period since 1912. Also, at a second first-order Weather Bureau station, Moorhead, Minn., the temperature was not above zero from 10 a. m. of the 14th to the close of the month—being the longest period of zero or lower maximum temperatures on record at that station. The State average temperatures in North Dakota, South Dakota, and Minnesota were, in the order named  $-5.8^{\circ}$ ,  $5.8^{\circ}$ , and  $-1.4^{\circ}$ , with respective departures from normal of  $-12.1^{\circ}$ ,  $-10.2^{\circ}$ , and  $-10.8^{\circ}$ ; in brief, these three States constituted the coldest area in the United States.

Conditions in Wisconsin and Michigan were somewhat less severe than in the afore-mentioned States. However, in Iowa a cold spell which began about the middle of the month developed into the most prolonged period of subzero (extending into February) temperatures Iowa has ever experienced in more than a century. In the Ohio Valley daily temperatures in Illinois and Indiana averaged approximately 25° below normal in the last decade and were abnormally low in Ohio, West Virginia, and Kentucky. Several States in the east Gulf and South Atlantic areas experienced severe cold in the last decade. Mississippi and Alabama recorded the coldest January since 1924, Arkansas the coldest since 1930, North Carolina the coldest back to and including 1919, South Carolina the coldest since 1918, and freezing temperatures were noted in Florida as far south as Orlando, Ocala, and St. Leo. Ohio and South Carolina established new monthly minimum temperatures, -25° and -4°, respectively.

In the east Gulf and Southeastern States the rapid transition from warm to decidedly cold weather was accompanied by excessive rains, record-breaking snowfall in many instances, and severe local storms, the latter incurring considerable damage. One of the most notable snowstorms ever known in Georgia occurred on the 29th and 30th. This covered the ground to a depth of 4 inches or more, throughout the State as far south as Newman, Griffin, Greensboro, Monticello, and Washington. In Atlanta the snowfall amounted to 8.0 inches, the largest amount ever measured there in a single storm.

As in the Eastern States, the Pacific Northwest experienced two definite and similar temperature trends, only here the cold trend was displaced close to the end of the month and the mean temperatures averaged 2° or slightly better above normal. However, in Washington and Oregon freezing temperatures were reported generally to the coast at the close of the month and zero temperatures at a number of stations east of the Cascade Mountains.

Temperature conditions in California and the major portion of the Great Basin were above normal and unusually mild weather prevailed in Nevada, where the State temperature averaged 4.1° above normal.

Without exception, the mean monthly temperature, by States, was below normal in all States east of the Rocky Mountains to the Atlantic coast, and in Arizona and New Mexico, whereas they were above normal in Pacific Coast States and in Colorado, Utah, and Nevada. The greatest negative departures from normal occurred in the northern Plains States and the upper Mississippi Valley, ranging from nearly 11° to more than 12°. In the middle Mississippi and Ohio Valleys the magnitude of negative departures generally ranged from 6° to 9°, while in the Gulf Coast and Atlantic States the order of negative departures was generally in the neighborhood of 2° to 4°.

Precipitation for January was extremely variable in amount in different areas. From the east Gulf section northward over the Atlantic States the monthly totals were large, being decidedly in excess of normal. Alabama, with an average of 12.34 inches, excess 7.32; North Carolina with 7.79 inches, excess 4.06; and Delaware, 7.23 inches, excess 3.85, established new maximum precipitation records for the month. Falls were second greatest of record in Georgia and Maryland, and third greatest of record in Florida, South Carolina, and New Jersey. West of this belt of heavy precipitation there was another extending from Texas northeastward to the Lake region where scanty amounts were received. Negative departures in this strip ranged from close to an inch in Illinois to as much as 3.17 inches in Arkansas, where it was the second driest month of record. North and westward of this last named belt, with the exception of Arizona, which was approximately a half an inch below normal, all States received normal or amounts moderately in excess of the usual values, while in the Pacific Northwest and northern Plateau region precipitation was decidedly heavy, amounts in excess of normal ranging from 1.55 inches in Idaho (the third greatest of record for January) to 2.92 inches in Oregon (second

greatest of record for January). The snowfall was surprisingly in excess of normal in practically every State. Only four States, Delaware, Arizona, Nevada, and California, had averages below normal. Amounts were unusually heavy and record breaking, or nearly so, in the Plains States, middle Mississippi Valley, and east Gulf States and in the northern portion of the South Atlantic In Iowa, with an average fall of 19.4 inches, the excess of normal was 12.5 inches, and it was also the greatest State average of record. Likewise, Alabama, with 3.7 inches, and Georgia, with 3.3 inches, established new monthly snowfall records, and falls were second greatest of record in Mississippi, and South Carolina, and third greatest of record in Nebraska, with an average of 11.3 inches. The unusually heavy snows in the North and Central States incurred considerable traffic difficulties and at times in Iowa, Minnesota, and the Dakotas even restricted railroad traffic. However, in a large measure, the snowcover afforded ample protection to winter grains and very little destructive freezing was reported, except in the southern portions of the southern Plains States. In the northern mountain regions of the far West, snowfall was generally above average. However, at the Weather Bureau mountain stations in California only 30 percent of normal snow fell, which amounted to about one-sixth of the January 1935, average. The greatest snowfall at any station was 163 inches at Paradise Inn, Wash., and 134 inches remained on the ground at the end of the month. The greatest amount at any of the elevated stations of California was 113 inches at Soda Springs and the greatest 24-hour amount was 26 inches at the same place. Snowfall was greatly deficient in the mountain regions of Arizona and the outlook was unfavorable for adequate run-off for reservoirs.

Owing to deficiencies in precipitation duststorms were reported on the 12th, 15th, and 24th

n Oklahoma.

Comparative monthly data.—Greatest station rainfall, 27.48 inches, for Cougar (near), Wash. Lowest temperature, -55° at Warroad, Minn., January 23; highest temperature, 98°, January 17, at Laredo, Tex. Section averages: Highest temperature, 58.9° for Florida; lowest temperature average, -5.8° for North Dakota. Greatest precipitation average, 12.34 inches for Alabama; lowest precipitation average, 0.56 inch for North Dakota. Section departures from normal: Greatest plus temperature departure, 4.1° for Nevada; greatest minus temperature departure, 12.4° for North Dakota; also, Minnesota and South Dakota were near with 10.8° and 10.2° respectively. Greatest plus precipitation departure, 7.50 inches for Alabama; greatest minus precipitation departure, 3.17 inches for Arkansas. Fifteen stations reported no precipitation for the month, and 3 reported totals of less than 0.01 inch.

# **FEBRUARY**

The extremely low temperatures prevailing at the close of January continued without abatement over the far Northwest, the northern Rockies, Dakotas, and upper Mississippi Valley during February. In the State of Washington the temperature averaged 22.5°, or 12.7° below normal, making it the coldest February of record. Approximately 62 percent of the stations in the west portion reported the coldest February of record and the same was true of 78 percent of the stations in the eastern district. In Oregon it was the coldest February since State-wide records began in 1887. However, in the southern half temperatures were near normal. In Montana the monthly temperature average was 10° colder than any previous February and ranked second among the coldest months of the year. In fact, the mean temperature, -0.7°, was only 0.6° removed from the lowest of record, January 1916. Marked contrast of temperatures existed in Wyoming; the southwest was unusually warm, while the north and east sections were decidedly colder.

In a large north-central area embracing the Dakotas, Minnesota, and Wisconsin, the persistence of low temperatures was without parallel in their climatic history. In the Dakotas February 1936, was the coldest month of record. The mean temperature for North Dakota averaged  $-12.9^{\circ}$  (departure from normal  $-22.6^{\circ}$ ) and was  $10.8^{\circ}$  colder than the next coldest February (1905) and  $6.5^{\circ}$  lower than the coldest January of record. The temperature averaged  $-3.8^{\circ}$  in South Dakota, or  $22.3^{\circ}$  below the usual average. Record-breaking minimum temperatures were established in both States,  $-60^{\circ}$  at Parshall, N. Dak., on the 15th and  $-58^{\circ}$  at McIntosh, S. Dak., on the 17th. Also, it might be mentioned at this time that two stations in

Montana recorded a minimum temperature of 50° below zero on the 15th.

In Minnesota and Wisconsin the degree of severity was lessened but little. In the former State, temperature averaged  $-5.5^{\circ}$ , or  $17.8^{\circ}$  below normal, while in Wisconsin the average was  $-2.8^{\circ}$ , or  $19.6^{\circ}$  below the usual value—in all being the coldest February and the second coldest month on record in both States. At Moorhead, Minn., it was the coldest month of record (observations began in 1881) and at Duluth the coldest, except 1875, while at Minneapolis-St. Paul, February 1936, was the coldest of record since observations were begun at Fort Snelling in 1819. There were 22 consecutive days at Minneapolis-St. Paul with minimum temperatures

below zero, which is the greatest ever recorded during any month of the year at that station. The intensity and duration of cold weather in this region was reflected in ice thicknesses on Lake Michigan. On February 22, surface ice extended unbroken from Milwaukee, Wis., to Muskegon,

Mich., a distance of slightly more than 80 miles.

Only slightly less phenomenal cold weather obtained over the Lake region, the Northeast, central valleys, central and southern Plains States, and west Gulf region. However, persistently low temperatures over these areas, except in the New England States, came to an abrupt conclusion within the first few days of the last decade and thereafter the temperatures were mostly moderate to abnormally high. Nevertheless, the 22 days of abnormal cold sufficed to lower the mean State temperatures to record-breaking levels in many instances. In Nebraska, the temperatures averaged 8.9°, or 17.3° below normal, and was the coldest month in 60 years, of record. Iowa recorded the coldest February of record, the mean temperature being 6.0°, or 16.3° below normal. In Illinois and Indiana the month averaged the second coldest February of record and temperatures were unusually subnormal southward to the central Gulf coast, and freezing temperatures were noted frequently from the 1st to the 22d in Louisiana almost to the coast.

In the more Southeastern States, January cold weather prevailed only the first few days of February, with several intermittent cold periods thereafter. In Pennsylvania, New York, and the New England States the cold weather was generally continuous and quite stormy, but not as severe as in the Western States. Stations along the northern coast reported but few days with maximum temperatures 32° or above, and practically none in the interior. On February 4, winds of gale force (70 miles per hour or more) occurred at Buffalo, N. Y. and vicinity, and thickness of ice increased from 11 inches on the 3d to 24 inches by February 24.

Temperatures were near normal in the far Southwest and California and averaged better than 1° above normal in the major portion of the Great Basin area. In February the average temperature on a State basis was below normal in all States, except Nevada and Utah. Aside from the enormous negative departures previously mentioned in the northern and central sections, minus departures ranged from 3° to near 5° in the South Atlantic, Gulf, and Southwestern States.

Prolonged and severe cold in the northern and northwestern States was extremely hard on livestock and necessitated heavy feeding. Winter grains were generally well protected in the northern parts of the Winter Wheat Belt, particularly from northern Missouri and northeastern Kansas northward. In the Ohio Valley conditions were not quite so favorable. Inadequate snowcover over the southern part increased injury. The same was true in most sections of the central Plains States. Cold weather prevented much growth of grains in Oklahoma and Texas and the lack of soil moisture and normal rains resulted in some damage by soil blowing in the

western counties of Oklahoma.

As in the month of January, precipitation was again heavy in the Middle and South Atlantic States, and the extreme eastern section of the east Gulf. In Florida, precipitation averaged 6.77 inches (departure from normal +3.63), the greatest February rainfall of record, and from Alabama northeastward to Maryland and Delaware the positive departures ranged from 0.66 inch in North Carolina to 2.05 inches in Alabama. Precipitation was unusually heavy in the northern and central Rocky Mountains and far Western States. In Utah, the State rainfall averaged 2.90 inches, establishing a new all-time February record, and precipitation averages were second greatest of record in Montana, Wyoming, and California, and third greatest of record in Nevada. From Montana eastward to the Lake region the average precipitation values were somewhat above normal, generally half an inch below normal in Pennsylvania, Ohio, and the New England States, and near normal in the western Ohio Valley, while southwestward over Missouri, Nebraska, Oklahoma, and Arkansas to Texas the rainfall was again decidedly below normal. Deficiencies in these areas generally ranged from half an inch to a maximum of 1.59 inches in Arkansas. It was the third driest of record in Nebraska and Oklahoma and fourth lowest of record in Texas.

Except for a few States, namely Arizona, Missouri, Oklahoma, and Texas, all sections had above-normal snowfall for the month. Falls were exceedingly heavy in the Rocky Mountain and Pacific States and in the upper Mississippi Valley. Measurements on a State average basis were the greatest of record in Montana, Wyoming, Iowa, and Wisconsin, and equaled the greatest monthly record in Utah and Minnesota. The outlook for adequate moisture supply in the principal irrigating States in the West was unusually favorable. In California the February snowfall at mountain stations averaged 205 percent of the normal. Ellery Lake, Calif., reported

a monthly total of 186.6 inches, and Snoqualmie Pass, Wash., 136 inches.

Comparative monthly data.—Greatest station rainfall reported, 29.97 inches at Bowman Dam, Calif. Lowest temperature reported, -60° on the 15th at Parshall, N. Dak.; also, two stations in Montana reported -59° on the same day and on the 17th a minimum of -58° occurred at McIntosh, S. Dak. Section averages: Highest temperature, 58.0° for Florida; lowest tempera-

ture, -12.9° for North Dakota. Greatest precipitation, 9.51 inches for California; lowest precipitation average, 0.23 inch for Kansas. Section departures from normal: Greatest plus temperature departure, 1.2° occurring in two States, Nevada and Utah; greatest minus temperature departure, 22.6° for North Dakota. Negative departures for the States of Montana and South Dakota were nearly as great, with the respective values, 22.4° and 22.3°. Greatest plus precipitation departure, 5.17 inches for California; greatest negative precipitation departure, 1.59 inches for Arkansas. Sixty stations, mostly located in the Southwest, reported no precipitation for the month, while an additional 17 stations reported less than 0.01 inch for the month.

## MARCH

March weather, from the standpoint of temperature, in contrast to the preceding months, of the year, averaged unusually mild, with mean values generally well above normal. However, some Northwestern States experienced cold weather the last 2 weeks or 10 days, which brought the monthly average to a level somewhat below normal in Washington, Oregon, and Idaho, and normal or near normal in Montana, Wyoming, and Utah. Elsewhere, except Florida (exactly normal) above-normal warmth prevailed. The positive departures ranged generally from 1.5° to 2° in the Southwest, somewhat greater in the east and west Gulf States, between 4° and 6° in the central and southern Plains States and in the Ohio Valley and Tennessee, and in excess of 6°

in New York and the New England section.

In keeping with the abnormalities in one or more of the basic climatic elements (temperature and precipitation) which so definitely marked January and February, March 1936, was outstandingly wet in the Northeastern States and equally deficient of moisture in the Midwest. From Tennessee and the Carolinas northeastward over the western Ohio Valley and Atlantic States to the New England district, inclusive, monthly precipitation averages were decidedly in excess of normal, ranging mostly from 1.50 inches above normal to more than 4 inches in the New England States. In the Virginias, Maryland, and New York precipitation averaged the second greatest March monthly amounts of record and the greatest March average of record in Pennsylvania and New England districts. Heavy precipitation in the Northeastern States resulted in disastrous floods in New England, Pennsylvania, and New Jersey.

West and south of this abnormally wet area precipitation averaged moderate to decidedly below normal, except in the extreme Northern States west of the Mississippi, the extreme Southwest and Florida. A considerable area in the Midwest southward to the Gulf, including the east Gulf States, received decidedly below-average rainfall. In Missouri, Arkansas, Louisiana, Mississippi, and Alabama the negative departures from normal ranged from close to 2 inches to nearly 3 inches. State averages were third lowest of March record in Missouri, Arkansas, and Oklahoma, and second lowest in Kansas, where precipitation averaged approximately 10 percent of normal. In the latter State, a large number of counties in the western and south-central parts failed to receive measurable amounts of precipitation on any day. In 22 counties the monthly rainfall averaged a trace, while 5 other counties received none. The month was also monthly rainfall averaged a trace, while 5 other counties received none. decidedly dry in California, lacking more than 1.50 inches of normal precipitation.

Snowfall during the month was somewhat above normal in the north Pacific, generally in the Plateau States, and from southern Michigan southeastward to Kentucky, West Virginia, and to the Atlantic Coast. Elsewhere, falls were generally from a fraction to 1 or 2 inches below normal. In Washington the average depth on the ground at the end of the month on the western slope was 60.1 inches, and 70.8 inches on the eastern slope. In the Snoqualmie Pass, in the timber at one location the snow depth was 126 inches, with a density of 37 percent of that of water. In general, snow storage over the principal basins of the Western States was generally

favorable for adequate reservoir supply.

As a result of decidedly subnormal precipitation in many of the Midwestern States, duststorms were quite frequent and often severe in many States, but generally less severe than March a year ago. Duststorms were frequent in the western half of Kansas, especially in the southwestern counties, and dust was reported on 21 days in Oklahoma. Goodwell, in the Oklahoma Panhandle, reported heavy dust on 18 days. Due to the serious drought existing in the southeastern counties of Colorado for the sixth consecutive month, high winds of 30 to 35 miles per hour on several dates incurred destructive duststorms and considerable soil erosion, reducing visibility at times for several hours to one or less city block. Duststorms were unusually severe in Baca County (Colo.) the last two decades of the month. Dust-bearing rain and snow was noted as far east as Wisconsin, Indiana, and Illinois on several dates, and the atmosphere over lower Michigan was laden with dust on the 23d and 24th. Soil blowing menaced winter grains in many counties in the western portions of Kansas and Oklahoma and considerable areas of winter wheat were reported blown out.

Comparative monthly data.—Greatest monthly station rainfall, 14.65 inches, occurred at Big Four, Wash. Highest temperature, 105° occurred at two stations in California on the 23d; lowest temperature reported,  $-35^{\circ}$  on the 30th at two stations located in Wyoming. Section averages: Highest temperature average, 65.3° for Florida; lowest temperature average, 25.5° for North Dakota. Greatest precipitation, 6.84 inches for Pennsylvania; lowest precipitation average 0.32 inch for New Mexico. Section departures from normal: Greatest positive temperature departure, 6.8° for New York; greatest negative temperature departure, 2.0° for Washington. Greatest plus precipitation departure, 3.30 inches for Pennsylvania; greatest negative precipitation departure, 2.83 inches for Mississippi. Eighty-three stations, for the most part located in New Mexico, Oklahoma, and Texas, reported no precipitation for the month, and 11 stations reported monthly totals of less than 0.01 inch.

# APRIL

The month of April 1936, was cool for the season over all sections east of the Rocky Mountains excepting Oklahoma, Colorado, and New Mexico, which averaged slightly above normal. West of the Rockies, mean State temperatures were, without exception, above normal; plus temperature departures ranging over 2° in Washington, Oregon, and Arizona, and over 4° in

The monthly departures from normal temperature over the eastern two-thirds of the country ranged generally from deficiencies of 1° to 2° in the Gulf and Atlantic sections to 4° or more in

the area from the Lake region westward to the northern Great Plains.

The month opened (week to 10 days) cold in most north and central sections west of the Rockies, followed by generally above-normal warmth thereafter. However, in this short cold period record-breaking April minimum temperatures were established in the following three States on the 1st: Washington,  $-7^{\circ}$  at Lake Keechelus; Idaho,  $-21^{\circ}$  at Alpha, and Oregon, -23° at Meacham. East of the Rocky Mountains the first week or 10 days were unusually cold in a large north-central area and continued mostly subnormal the remainder of the month. Record April minimum temperatures were established in the following six States: -13° in South Dakota on the 3d; -15° in Nebraska on the 2d (all but 10 stations in Nebraska established new low April minimum temperatures); -2° in Kansas on the 2d; 6° in Oklahoma; 5° in Texas; and 17° in Arkansas. In South Carolina a minimum of 18° equaled the lowest April temperature of record. In general, in many north and central States, the month averaged the

coldest April in the last 8 to 15 years.

Precipitation during April was considerably subnormal over more than three-fourths of the country. Above-normal rainfall was confined to areas in the Atlantic and east Gulf sections, New York and New England received more than the usual amount, while in Pennsylvania, New Jersey, Maryland, and Delaware, precipitation averaged below normal. Southward to Florida, including West Virginia and Ohio, precipitation averages ranged from slightly above normal to record-breaking levels in Georgia and South Carolina. Georgia received on the average 7.92 inches or 4.20 inches in excess of normal; South Carolina, 8.27 inches or 5.10 inches above normal, averages which exceeded considerably any previous April rainfall average on record. North Carolina received on the average 5.59 inches, amounting to the fourth greatest April rainfall of record. In direct contrast to excess moisture, in the Southeast, a large area extending from northern Texas, Oklahoma, much of Kansas, westward to central Utah and Arizona, there was less than 25 percent of normal rainfall for the month, with some sections having less than 10 percent of normal. At Oklahoma City there was scarcely enough rainfall to measure, the total being about 1 percent of normal, and the State average for Oklahoma, 0.99 inch (departure from normal -2.36 inches) was less than any previous low April value.

Drought conditions also prevailed in the northern Great Plains and States in the upper portions of the Mississippi and Ohio Valleys. Deficiencies generally ranged in the neighborhood of 1 inch. Rainfall was deficient in Washington, but the remaining Pacific States averaged

nearly normal.

April snowfall was below the average in practically all sections subject to appreciable snow-However, in a large belt extending from eastern Nebraska and northeastern Kansas northeastward to the Lake region, monthly totals generally exceeded the normal by 1 or 2 inches.

Dusty conditions which had prevailed during the several preceding months continued into April, but with decreased frequency and mostly with diminished severity. Areas subject to frequent and severe duststorms centered in the western portions of Kansas and Oklahoma, northwestern Texas, northeastern New Mexico, and especially east and central Colorado. In portions of the last-mentioned State severe duststorms occurred on many dates, reducing visibility to zero for periods of several hours, greatly interfering with vehicular and air traffic.

Comparative monthly data.—The greatest total rainfall reported, 8.27 inches at Caesars Head, N. C. Highest temperature reported, 111° on the 18th at Quartzsite, Ariz. Section averages: Highest temperature, 70.0° for Florida; lowest temperature, 35.6° for North Dakota. Greatest precipitation, 8.27 inches for South Carolina; lowest precipitation average, 0.14 inch for Arizona. Departures from section normals: Greatest plus temperature departure, 4.9° for Nevada; greatest minus temperature departure, 6.6° for Mississippi. Greatest positive precipitation departure, 5.10 inches for North Carolina; greatest minus precipitation departure, 2.26 inches for Oklahoma. Seventy-nine stations reported no precipitation during the month. Of this number, 41 and 17 were located in Arizona and New Mexico, respectively. In addition, one station reported a monthly total of less than 0.01 inch.

May 1936, for the greater part of the country, was exceptionally dry and warm. While there were a few abnormally cool periods in the East, especially around the middle of the month in the Lake region and the Northeast and again near the close in the East, the general run of temperature for the month was above normal, except in a few local areas. The cool period resulted in considerable damage to tender vegetation and tree fruits, especially in Michigan and New England and locally elsewhere, but there were no generally harmful frosts.

The mean May State temperatures were above normal in all States. Departures (plus) were close to normal in Florida, Louisiana, and Texas, but elsewhere greater; generally more than 1° to somewhat above 3° in the Atlantic States, eastern Ohio Valley, the far Southwest and Pacific Northwest, and ranged above 4° or 5° in the middle portions of the Mississippi and Missouri Valleys and more than 7° in the western Great Plains States.

Precipitation varied greatly in different areas, even in nearby sections. It ranged from much above normal to markedly deficient, the latter predominating. In the southwest, Texas had heavy rains, averaging 6.52 inches for the month. Louisiana and New Mexico received on the average 1 inch or better above the usual amounts, while Kansas rainfall averaged 1.08 inches above normal. In marked contrast, the northern Plains were very dry, with some stations reporting inappreciable rainfall for the entire month. Deficiencies in Montana, Wyoming, and the Dakotas ranged from 1 inch to 1.5 inches. Also from the Mississippi Valley eastward, except very locally, it was one of the dryest Mays of record, especially in the Southeast where monthly totals over a large area ranged from less than 10 percent to scarcely 25 percent of normal. North Carolina received on the average 0.48 inch, or 3.09 inches below normal, being the least May average rainfall in the State's climatological history. In Georgia, rainfall averaged 1.22 inches, or 2.26 inches below normal, being the second lowest May average of record. In other Southeastern and adjacent interior States, negative precipitation departures were as follows: Alabama, 1.99 inches; Mississippi, 1.77; Tennessee, 2.79; Kentucky, 2.49; West Virginia, 2.98; North Carolina, 3.21, and Virginia, 2.39 inches. Also in Arkansas, Missouri, Illinois, Indiana, and Ohio, precipitation averaged 2 or more inches below the monthly normal. In fact, only seven States, Florida, Louisiana, Texas, New Mexico, Kansas, Washington, and Oregon, had above-normal rainfall, and northern New England received exactly normal.

While droughty conditions had persisted for some time in the central valleys, a sudden reversal from the wet condition existing in the Southeastern States during most of April to unprecedented dryness wrought havoc in the southeastern agricultural sections. There was not enough soil moisture for germination and an abrupt change formed a dry, hard topsoil crust. The following

is an excerpt from the Georgia section director's report for the month of May:

"Rainfall in April after the 10th had been remarkably light in the middle and northern sections." Continued dry weather in May and the first week or more of June resulted in one of the most disastrous droughts ever known in Georgia, crop losses for the State being estimated, early in June, at \$30,000,000 to \$40,000,000. Large areas were without pastures, while white potatoes and other vegetables were practically a failure. The ground was so dry that a great deal of seed never sprouted and stands of cotton were said to be less than 20 percent in some central

Duststorms were less frequent during May than in the preceding month, and dense dust occurred over a smaller area. The maximum number of dense duststorms decreased by about 50 percent, and occurred principally in Colorado, New Mexico, Kansas, Nebraska, and Wyoming. Practically all interior States noted general or local, light dust conditions on one or more days. As in the preceding month, unusually severe duststorms occurred in Baca County, Colo., with considerable damage, and discomfort to inhabitants.

Comparative monthly data.—Greatest total precipitation, 17.88 inches, Port Arthur, Tex.; highest temperature, 110° reported from six stations in Arizona; lowest temperature, 11°, at Ellery Lake, Calif., on the 30th, also reported for Pole Mountain Nursery, Wyo., on the 2d and other dates. Section averages: Highest temperature average, 75.7° for Florida; lowest temperature average, 57.6° for New England; greatest precipitation average, 6.52 inches for Texas (departure, +2.88 inches); lowest precipitation average, 0.12 inch for Arizona. Section departures from normal: Greatest plus temperature departure, 8.2° for North Dakota; greatest minus temperature departure—all section departures positive; smallest plus departure, 0.1° for Florida. Greatest plus precipitation departure, 2.88 inches for Texas; greatest minus precipitation departure, 3.21 for North Carolina. Eight stations reported less than 0.01 inch of rainfall for the month and 117 stations reported 0.00 inch; 48 and 39 stations respectively of the 117 were located in Arizona and California.

# JUNE

June, like the preceding month, was exceptionally warm and dry over most of the country east of the Continental Divide. Although rainfall was considerably below normal in the Southeast, timely rains were helpful in some sections. In the Central Valleys and Plains States only light rain occurred, greatly adding to the already large accumulated rainfall deficiency.

The mean temperatures for the month of June, on a State basis, averaged near normal in the Atlantic Seaboard States, the northern half of the Ohio Valley, and in Texas and New Mexico Temperatures averaged somewhat below normal in Minnesota, Wisconsin, Michigan, and slightly so in Florida and California. State mean temperature averages were above normal with plus temperature departures near 2° or better in the north Pacific, the Plateau States, and generally 3° to 4° in the Great Plains States. New June maximum State temperatures were established in the following eight States: Montana, 111°; Nebraska, 114°; Arkansas, 113°; Louisiana, 110°; Mississippi, 111°; Tennessee, 110°; Kentucky, 110°, and Indiana, 111°. Monthly maximum temperatures were equaled in Nevada with 117°; Colorado, 112°, and Kansas, 114°. The lowest minimum temperature recorded, 13°, occurred in California.

Only 12 States or sections had above-normal precipitation, namely, Washington, Oregon, California, Newsday, Idaho, Utah, Wyoming, and Colorado in the West, and Florida, Newsday, Jersey.

California, Nevada, Idaho, Utah, Wyoming, and Colorado in the West, and Florida, New Jersey, Delaware and southern New England in the East. The large area intervening between the two principal mountain ranges, the Rocky Mountains and the Appalachian Mountains, averaged decidedly subnormal. Throughout the Great Plains States the magnitude of negative precipitation departures varied generally from 1.5 to more than 2 inches. The relatively driest weather occurred in the southern half of the Ohio Valley and the extreme lower Mississippi Valley; the lowest State average was Louisiana with 0.53 inch, or only 11 percent of normal. Kentucky received slightly more than 20 percent, and Tennessee 24 percent of normal. State rainfall averages were lowest of June record in South Dakota, Missouri, Louisiana, Tennessee, Kentucky, Ohio, and West Virginia, and second or third lowest of June record in Illinois, Indiana, and Kansas.

Duststorms were somewhat more frequent but less severe in June than in the preceding month. However, they effected no material damage to crops, partly because of advanced deterioration due to drought conditions and the weak character of the duststorms. In some sections of Iowa and northeastern Montana the degree of intensity was sufficient in some cases to cause

discomfort to inhabitants.

Comparative monthly data.—Greatest total precipitation, 24.73 inches, Everglades, Fla.; highest temperature, 124° on the 21st, at Cow Creek, Calif.; lowest temperature, 13° on the 1st, at Ellery Lake, Calif. Section averages: Highest temperature average, 82.1° for Texas; lowest temperature average, 61.6°, Oregon; greatest precipitation average, 8.01 inches for Florida; lowest precipitation average, 0.19 inch, in Arizona. Section departures from normal: Greatest plus temperature departure, 4.8° for South Dakota; also in Wyoming and Montana the temperature departures were +4.3° and +4.1° respectively. Greatest minus temperature departure, 2.3° for Wisconsin. Greatest plus precipitation departure, 1.88 inches, Washington; largest minus precipitation departure, 4.03 inches, Louisiana. Thirty-seven stations in all reported less then 0.01 inch of rain, 32 of which are located in California.

## **JULY**

July was extremely hot and dry throughout the interior of the country. High temperatures and precipitation deficiencies broke established long-time records quite generally in the Great Plains and Central Valley States. In fact, the mean temperature on a State basis was below normal only in New England and Delaware, though in the Pacific Coast States, Rio Grande Valley, and extreme Southeast and Florida Peninsula, plus departure seldom exceeded 1° for the month. From Montana, east and southeastward over the Great Plains States to the western Ohio Valley section, mean monthly State temperatures exceeded normal values 7° to 11°. Highest of record average mean temperatures were established in the following 10 States; departures from normal are also given: Montana, 74.3°, departure, +7.4°; North Dakota, 79.9°, +11.1°; South Dakota, 84.2°, +11.2°; Nebraska, 83.6°, +8.3°; Kansas, 85.7°, +6.7°; Oklahoma, 86.5°, +4.8°; Minnesota, 77.1°, +7.1°; Iowa, 83.4°, +8.8°; Illinois, 83.5°, +7.1°, and Indiana, 81.4°, +5.7°. New absolute maximum temperature records occurred in the following 14 States: Montana, 113°; North Dakota, 121°; South Dakota, 120°; Nebraska, 118°; Kansas, 121°; Oklahoma, 120°; Missouri, 118°; Wisconsin, 114°; Michigan, 112°; Indiana, 116°; Virginia, 109°; West Virginia, 112°; Pennsylvania, 111°, and New Jersey, 110°. Previously established highest-maximum temperature of record were equalled in Minnesota, Illinois, and Maryland.

The lack of precipitation, decidedly less than normal, over a large interior area extending from Michigan and Indiana westward to the Rocky Mountains and from Missouri and Oklahoma northward, was equally as pronounced as the abnormally high temperature conditions. In fact, all States in this area had less than half of the July normal—most of them much less than half. The relatively dryest States were Iowa, 13 percent; Nebraska, 18 percent; Minnesota, 22 percent, and Oklahoma and South Dakota, 24 percent of normal. The average rainfall for South Dakota, 0.62 inch (departure from normal, -1.83 inches); Nebraska, 6.57 inches (departure from normal, -2.59 inches), exceeded considerably previous lowest-of-record July averages. Rainfall averages on a State basis were second lowest of July record in the following eight States; departures from normal are given also: North Dakota, 0.70 inch, departure, -1.71 inches; Kansas, 0.86 inch, -2.34 inches; Oklahoma, 0.71 inch, -2.17 inches; Minnesota, 0.73 inch, -2.57 inches; Wisconsin, 1.01 inches, -2.54 inches; Iowa, 0.51 inch, -3.17 inches; Illinois, 1.22 inches, -2.03 inches; and Indiana, 1.59 inches, departure from normal, -1.72 inches.

Precipitation deficiencies in the eastern Lake region, Northeastern States, and northern and middle Atlantic States, ranged from 0.63 inch in northern New England to 1.80 inches in Michigan; 1.78 inches in New York, 1.40 inches in Pennsylvania; and 2.32 inches in New Jersey. From Maryland and West Virginia southward to the Gulf and westward to include Arkansas and Texas, rainfall averaged close to normal, except in Tennessee, Alabama, Arkansas, and Texas, where amounts greatly exceeded the average. Respective plus departures for the last four States were as follows: 2.19 inches; 1.76 inches; 1.10 inches, and 1.50 inches. Pacific coast and plateau regions had above normal rainfall, excesses were generally slight to moderate, except moderately large in the central Great Basin. Utah received on the average 2.36 inches (departure from normal 1.45 inches), being the greatest July average of record.

July had only a few duststorms, mostly local in character; with one or two exceptions, they were confined to the area between the Mississippi River and the Rocky Mountains. East of

the Mississippi, there were only a few scattered reports of dusty conditions.

Comparative monthly data.—Greatest total precipitation, 24.68 inches, Hallettsville, Tex.; highest temperature, 125°, Greenland Ranch, Calif., on several days; lowest temperature, 26°, at Ellery Lake, Calif. on the 11th, and at Therma, N. Mex., on several dates; also at Meacham, Oreg., on the 25th. Section averages: Highest temperature average, 86.5° for Oklahoma; lowest temperature average, 66.5° for Washington; highest precipitation average, 7.19 inches, Alabama; lowest precipitation average, 0.19 inch, for California. Section departures from normal: Greatest plus temperature departure 11.8° for North Dakota; also South Dakota was near with +11.2°; largest minus temperature departure, 1.2°, New England district; largest plus precipitation departure, 2.19 inches, for Tennessee; largest negative precipitation departure, 3.17 inches, for Iowa. Sixty-one stations in all, 46 located in California, were without the occurrence of any form of precipitation during the month, and 16 stations reported less than 0.01 inch.

#### AUGUST

August weather was largely a continuation of temperature and precipitation trends of the preceding month—persistent, daily, abnormally high temperatures and decidedly below-normal rainfall over most interior sections. In the northern section of the New England district, temperatures averaged slightly below normal. Southern New England and the remaining 41 climatological sections averaged above-normal warmth. Positive departures, ranged generally from 1° to 2°, except considerably greater in the Great Plains and the interior valley States. Highest August mean temperature of record resulted in the following nine States; departures from normal also given: South Dakota, 76.3°, +5.2°; Nebraska, 79.4°, +6.4°; Kansas, 85.3°, +7.7°; Oklahoma, 88.0°, +6.6°; Iowa, 79.2°, +7.2°; Missouri, 84.6°, +8.2°; Illinois, 81.0°, +6.9°; Indiana, 79.4°, +5.9°; Kentucky, 81.1°, +5.3°.

Previous highest of record maximum temperatures were also broken in the above nine States, except in Illinois, Iowa, and Kentucky, and in three additional States, namely, Texas, Arkansas, and Louisiana. In contrast to record-breaking maximum temperatures, a minimum of 25° on the 26th in New Mexico equaled the lowest temperature of record in that State. The lowest minimum recorded in the United States during the month was 18° at Bostetter, Idaho, on the 29th.

Like the preceding month, the rainfall was decidedly subnormal over the Great Plains and interior valleys. The dryness centered chiefly in the States of Oklahoma, Arkansas, Missouri, and Kansas, with the percent of normal rainfall ranging from 7 to 34 percent. In Oklahoma and Arkansas, the month was the dryest August on record. Other decidedly dry States were Kentucky, Texas, Mississippi, and Nebraska, with little more than half of normal rainfall for the month. From the Rocky Mountains westward, most States received near normal or above, except that rainfall in Washington and Oregon was somewhat deficient. From the Lake region eastward, including Wisconsin, which averaged almost 2 inches above normal, northeastward over Ohio and Pennsylvania to the north Atlantic coast, rainfall averaged considerably above the usual amounts. South Atlantic and eastern Gulf States were below normal, with the exception of Alabama and Georgia, which received on the average, amounts 1 inch or better above normal, due, in a large measure, to tropical disturbances in the east Gulf around the 1st and 21st of the month

While August rainfall was decidedly subnormal in the Plains States, in the Southwest duststorms were fewer than in the several other months of 1936. By States, the frequency seldom exceeded 6 for the month, ranging from 3 or less in the southern Great Plains to about 10 locally in the northern Great Plains States. They were most frequent from the 16th to the 23d, though there were a few isolated occurrences early in the month and near the close. The most severe local duststorm occurred at Boise, Idaho, on August 2. Visibility was reduced to 25 feet or less

for short intervals.

Comparative monthly data.—Greatest monthly precipitation total, 17.41 inches, at Blountstown, Fla.; highest temperature, 126° on the 6th, at Greenland Ranch, Calif.; lowest temperature, 18° on the 29th, at Bostetter, Idaho. Section averages: Highest temperature average, 88.0° for Oklahoma; lowest temperature average, 66.1° for Wyoming; highest precipitation average, 6.76 inches for Florida; lowest precipitation average, 0.13 inch for California. Section departures from normal: Greatest plus temperature departure, 8.2° for Missouri; greatest minus temperature departure—no negative temperature departures; smallest plus temperature departure, 0.1° for Florida. Greatest plus precipitation departure, 1.92 inches for Wisconsin; greatest negative precipitation departure, 3.14 inches for Arkansas. One hundred and ninety stations, 91 of this number located in California, received no precipitation for the month. Two stations reported less than 0.01 inch.

**SEPTEMBER** 

The temperature conditions during September 1936, on a State average basis, were somewhat below normal in Utah, Arizona, and New Mexico, and slightly so in Oregon, Idaho, Kentucky, and northern New England, while southern New England and the remaining States averaged above-normal warmth. Plus departures were generally of 1° to 2° magnitude in the Middle and Southern Atlantic States, and near 3° or above in the Great Plains, and 4° or more in Iowa,

Missouri, Arkansas, and Illinois.

In marked contrast to the preceding month, September had more than normal rainfall over most sections east of the Rocky Mountains, the monthly totals being especially large from Texas and New Mexico, northeastward over the central valleys. Texas received on the average 7.04 inches, or 4.03 inches in excess of the normal. In Oklahoma, rainfall averaged 7.85 inches, or 4.86 inches above normal, exceeding any previous September average of record, and in direct contrast with the rainfall of the preceding month (August 1936), when Oklahoma received the least of record August average rainfall. In Missouri, rainfall averaged 8.62 inches (departure from normal +4.44), amounting to the second highest September average of record, and in Iowa and Illinois the rainfall averages and departures from the normal were, respectively, 7.22 inches, +3.36, and 6.77 inches, +3.09. In both of the latter States, the amounts stated were the third greatest September average rainfall of record.

In the more eastern sections, rainfall was generally near or above normal, except that West Virginia and Pennsylvania had deficiencies slightly greater than 1 inch, and in the Gulf area, minus departures ranged from one-half inch to more than 1 inch in Alabama, Mississippi, and Louisiana, and more than 2 inches in Florida. In a large area in the Northwest, extending eastward to central-northern sections, rainfall continued deficient, a few States having less than half the normal. The greatest deficiencies occurred in California and South Dakota, with 35 and 44

percent of normal rain respectively.

The reason for monthly precipitation amounts largely in excess of normal over the southern two-thirds of the country east of the Rocky Mountains, in contrast to the abnormal dryness previously encountered for several months, may be traced directly to courses followed by tropical and polar air masses. The trajectory of masses of air was mostly from the Gulf of Mexico over Texas to New Mexico and over Arizona whence it was deflected northward and eastward. To the northwest, on the contrary, the trajectory of Polar Pacific and Polar Continental air masses,

not infrequently coming down over the Plateau and North Pacific States, was to the southward, southeastward, and eastward. The consequences of the trajectories of these contrasting air masses was an interaction, which took place over a frontal zone extending roughly from southwest to northeast with a line from Arizona to Michigan, forming the western limit of the zone. This set-up, so to speak, accounted for above-normal precipitation over the southern Plains and

middle and lower portions of the interior valleys.

Several States reported light snow (the first of the season) in September, but amounts of consequence were confined mostly to high western areas, principally the Rocky Mountains, Cascade, and Sierra Nevada Ranges, and in the south portion of the Black Hills of South Dakota. Several of the Plains States reported traces of snow, principally in the western portions. East of the Mississippi River, traces of snow were reported in northern Wisconsin, the Upper Peninsula of Michigan, and the Adirondack Mountains of New York. Most of the snow that fell in the middle and southern Rocky Mountains occurred as the result of interaction by P<sub>C</sub> (Polar-Continental) air accompanying the southward movement of a cold-front and N<sub>PP</sub> (transitional Polar Pacific) air. This interaction was manifested first on the 25th in the southern portion of Wyoming. Snow depth in six counties averaged from 10 to 11 inches. Early on the 26th, heavy snow began to fall over the eastern slopes of Colorado and most of the mountain section, and continued intermittently for 60 hours. The Weather Bureau station at Denver, Colo., recorded a snowfall of 15 inches on the 28th and at 8 p. m. on the same date the snow measured 9 inches, establishing a new record for so early in the season. The previous maximum depth for the month of September was 1 inch on the ground. The same storm caused heavy snowfall over the north and central mountains of New Mexico, where maximum depths of 18 inches were common.

Duststorms during September were mostly light in character, though actual dense dust was reported in Montana, North Dakota, Nebraska, Colorado, and Oklahoma. Light dust was noted over most western sections from Texas and New Mexico northward, and in the upper Mississippi Valley. Light dust was general in eastern Montana and Colorado and in Nebraska and South Dakota. The storms were scattered throughout the month, being reported in each

week, but were most frequent from the 17th to the 29th.

Occurences of killing frosts in September were confined to the northern 1- or 2- tier States. However, the damage incurred was very little or none, due to the advanced stage of the vegetation. Killing frosts occurred as early as the 7th in Wyoming and generally from the 16th on in Washington, Oregon, northern Great Plains and as late as the 25th and 29th in Michigan and Minnesota. Dates of occurrences were generally average or later than normal, except killing frost on the 26th over practically all of the New England district was earlier than usual.

Comparative monthly data.—Greatest total precipitation, 27.65 inches at San Angelo, Tex.; highest temperature reported, 115° at Agua Caliente, Ariz., on the 9th and at Cow Creek, Calif., on the 1st and other dates. Section averages: Highest temperature average, 80.9° for Louisiana; lowest temperature average, 54.5° for Wyoming; greatest precipitation average, 8.62 inches for Missouri; lowest precipitation average, 0.16 inch for California. Section departures from normal: Greatest plus temperature departure, 4.5° for Arkansas; greatest minus temperature departure, 1.5° for New Mexico; greatest plus precipitation departure, 4.67 inches for Oklahoma; greatest minus precipitation departure, 2.26 inches for Florida. One hundred and twenty-three stations received no precipitation during the month (103 of this number were located in California), and 10 stations reported less than 0.01 inch.

### **OCTOBER**

October had mostly mild temperatures and decidedly spotty distribution of rainfall. The temperatures averaged somewhat above normal in most sections east of the Mississippi River and also from the Rocky Mountains westward. In the interior of the Pacific States the month was from 3° to 7° warmer than normal and in the Atlantic area, mostly from 1° to 3°. Between the Mississippi River and the Rocky Mountains there was a general tendency to subnormal temperatures, the largest deficiencies being in the southern portion of the area. Also, in the western upper Lake region the month was from 2° to 5° colder than normal. In the interior sections the first general freeze of the season occurred in the latter part of the month, and at the same time some of the lowest October temperatures of record were equaled in the Northeast. At Roseau, Minn., a minimum temperature of -16° established a new low October record for that State.

Precipitation was very unevenly distributed. East of the Mississippi River amounts were generally above normal, being decidedly in excess (above 1 inch) in the Ohio Valley, Pennsylvania, and West Virginia, and from 2 to 3 inches above normal in Virginia and in the South Atlantic States. West of the Mississippi River, including Wisconsin and Minnesota, to the

Pacific coast, the tendency was to subnormal precipitation, excepting Missouri and Arkansas received amounts 0.63 and 1.83 inches in excess of normal; Nevada and Utah slight excesses; and Colorado averaged exactly normal. The northern Great Plains continued dry throughout the month; North Dakota, South Dakota, and Nebraska received, respectively, 20, 31, and 24 percent of normal; also, Minnesota, 35 percent, and Montana, 58 percent of the usual amounts. Idaho and the two northern Pacific States were exceptionally dry. In Idaho it was the second dryest October of record, the average 0.33 inch, departure from normal -1.14; and in Washington and Oregon, the third dryest October of record, with the following respective averages and departures: 0.69 inch, departure, -2.21, and 0.13 inch, departure, -1.65.

Normally, the occurrence of snow was more general and extensive in October than in the preceding month. Several States east of the Mississippi River had measurable amounts; Michigan, 0.6 inch and Wisconsin and New York, 0.4 inch. Considerable snow fell in the northern and elevated sections of the New England States. Traces of snow were quite frequent in northern Illinois, Indiana, and in the Allegheny Mountain regions of Pennsylvania, Maryland, and West Virginia. West of the Mississippi River, amounts were in general considerably larger. The Minnesota State average was 2.1 inches; North Dakota, 1.1; South Dakota, 2.3; Nebraska,

0.8; Wyoming, 4.2; Utah, 0.8; Colorado, 4.2, and New Mexico, 0.9.

During October, duststorms were reported from eastern New Mexico and the Texas Panhandle northward to the Canadian border, and from the Rocky Mountain States eastward to the middle Mississippi Valley and Lake region. The storms were generally of light intensity and short duration, and were most frequent on October 9, 10, 17, 20, 28, and 30. On the 30th these storms were general in North Dakota. At Huron the visibility was reduced to 1,300 feet, while on the same date Moorhead, Minn., reported dense dust from 1 p. m. to 5 p. m., with

visibility reduced to one-fourth mile the greater part of the afternoon.

Comparative monthly data.—The greatest amount of precipitation reported was 16.41 inches, at Fort Pierce, Fla. Highest temperature, 109°, occurred at Palm Springs, Calif., on the 11th, also on other days. Lowest temperature, -16°, on the 26th, at Roseau, Minn. Section averages: Highest temperature average, 75.6° for Florida; lowest temperature average, 42.3° for North Dakota; Minnesota was near with a mean temperature of 42.5°. Greatest precipitation average, 6.14 inches for South Carolina; also, North Carolina averaged 6.11 inches. Lowest precipitation average, 0.13 inch for Oregon. Section departures from normal: Greatest plus temperature departure, 3.2° for Washington; greatest minus temperature departure, -4.1° for Texas. Greatest plus precipitation departure, 3.08 inches for South Carolina; greatest minus precipitation departure, 2.43 inches for Washington. Sixty-five stations received no precipitation during the month, while four stations reported less than 0.01 inch.

# **NOVEMBER**

The month of November was cooler than normal over the eastern half and over most of the western section of the country. Only six States, namely, North Dakota, Nebraska, Colorado, Nevada, California, and Arizona had above-normal warmth. The positive departures from normal were small, North Dakota, with +1.4°, being the greatest. Temperature deficiencies generally ranged from 1° to 2° in the Middle and South Atlantic and Gulf States, except Texas averaged nearly 4° below normal. In the Lake region and New England districts, minus departures ranged from close to 3° to better than 4° in northern New England and Michigan. In the far Northwest, temperatures averaged near normal, except considerably subnormal in Oregon and Idaho, with the following respective departures from normal:  $-3.6^{\circ}$  and  $-3.5^{\circ}$ . Notwithstanding the prevalence of cool weather in Oregon, a maximum temperature of 89° at Mitchell, in the eastern division, on the 22d, surpassed the previous highest November maximum of record.

The southern limit of freezing weather occurred well southward over the Florida Peninsula and practically to the Gulf coast westward. In fact, temperatures 32° or lower occurred in all parts of the country, except along the Gulf coast sections and a narrow belt along the Pacific coast. Subzero temperatures occurred from the interior of the Northeast, at points in the extreme upper Lake region, and over a considerable Northwestern area. The lowest minimum, 30° below

zero, occurred in Wyoming.

The monthly precipitation on a State average basis was below normal in all but three States, namely, Indiana, Kentucky, and South Dakota. Negative departures from normal were especially large in the Atlantic, Gulf, and southern Plains States. Dryness was much more pronounced in the northern Plateau and Pacific States. The State averages for Washington (0.62) inch, departure from normal, -4.50) and Oregon (0.20 inch, departure, -3.47), were the lowest of November record. Also, Idaho's average rainfall, 0.17 inch, equaled the least November rainfall average of record; California averaged slightly less, with 0.10 inch, lacking 2.31 inches of being normal.

During the month of November, traces of snow or greater amounts, were reported in all States except Louisiana. Averages were above normal in a few north-central States, eastern Ohio Valley, and in the Northeast. Locally, in parts of the Upper Peninsula of Michigan, monthly totals were especially large: Duluth, 14.8 inches; Marquette, 25.4; Escanaba, 12.5; and Sault Ste. Marie, 10.4 inches. Also, in the lower Lake region, Cleveland, Ohio, received 14.3 inches (normal 3.9), Erie, Pa., 13.4, and Oswego, N. Y., 13.1.

Duststorms were generally widespread, being reported from Port Arthur, Tex., to the Canadian border, and from the Rocky Mountains eastward to Chattanooga, Tenn., and Buffalo, N. Y. Most of the storms occurred late in the month, generally from the 19th to the 25th, and ranged in frequency from only one occurrence at some stations to six or more at others, the greatest number being reported in the central and northern Great Plains. Dust was encountered at various altitudes by aviators, the height of the clouds ranging upward to 4,000 feet east of Wichita, Kans., and 6,000 feet at Chicago, Ill. In central South Dakota and portions of Iowa the storms were the worst in 2 years. In general, minimum visibility in the densest storms was one-half mile, but in portions of Nebraska it was reduced to one-fourth mile on the 22d and to

100 yards on the 24th.

Comparative monthly data.—Greatest total precipitation reported, 9.17 inches at Belle Glade, Fla.; highest temperature, 96°, occurred on the 2d, at Encinal, Tex.; lowest temperature -30°, occurred at two stations, located in Wyoming, on the 3d. Section averages: Highest temperature average, 63.8° for Florida; lowest temperature average, 26.2° for Minnesota. Greatest precipitation average, 3.74 inches for Louisiana; lowest precipitation average, 0.09 inch for Nevada; California was second lowest with 0.10 inch. Section departures from normal: Highest plus temperature departure, 1.4° for North Dakota; greatest minus temperature departure, 4.7° for Michigan. Greatest plus precipitation departure, 0.51 inch for Indiana; greatest minus precipitation departure, 4.59 inches for Washington. Two hundred and forty-four stations received no precipitation during the month and three stations reported less than 0.01 inch.

**DECEMBER** 

December 1936, was characterized by moderate temperatures to abnormally warm weather for the season in all sections of the country, the interior States having a considerably warmer than normal month. There was abundant precipitation, ranging from near normal to considerably above normal rather generally east of the Great Plains and also over a large area in the far Southwest, with scanty falls over most of the Northwest and Rio Grande Valley areas.

On a State average basis, temperatures averaged above normal in all districts, except California, which was slightly more than 1° below normal, and in the States comprising southern New England, which averaged exactly normal. Elsewhere, departure from normal temperature generally ranged 1° or more, the greatest plus temperature departures occurring in the interior valley sections. The occurrences of maximum temperatures were generally within established limits. A reading of 69° at Kalamazoo, Mich., on the 30th, equaled the highest of record for Michigan for December. Temperatures freezing or below occurred in all parts of the country, except along the southern coast sections and along the Pacific coast, with the limit of zero readings extending as far south as Kansas and Missouri in the interior and to Arizona and New Mexico in the far West. The lowest temperature record during the month was -42° at Pokegama Falls, Minn. Minimum temperatures were well within established limits.

Precipitation was generally heavy in the most eastern sections, while the monthly totals were decidedly above normal in most districts east of the Plains. The far Southwest, including Utah, Arizona, Nevada, and California, had much more than normal precipitation, with several local areas having more than twice the normal. On the other hand, the northern Plains, the far North-

west, and New Mexico and Texas had decidedly less than normal.

Snowfall was slightly above normal in the upper Mississippi Valley and northern Great Plains and decidedly in excess of normal in the Southern Plateau and Great Basin areas. East of this belt of above-normal snowfall, monthly totals were, without exception, below normal. The largest deficiencies centered in the Ohio Valley; also, amounts averaged slightly deficient in the

two northern Pacific States, Oregon and Washington.

In consequence of near-normal or above-normal precipitation in the Plains sections during December, the frequency and intensity of duststorms were considerably less than in the preceding month. Light dust was reported from Oklahoma northward and in some Rocky Mountain sections, and in portions of the upper Mississippi Valley, the frequency ranging from 6 days in the southern Plains to 2 or less in the north. Disturbances of this type, however, continued to be quite frequent and severe in some counties in eastern Colorado and northeastern New Mexico. On the 28th and 29th the visibility in Baca County, Colo., was reduced from one-half mile to 50 feet at times from 9 a. m. to 3 p. m., and locally to 100 feet or less on the 16th and 17th in northeastern New Mexico. In North Dakota light dust was general on the 19th and several storms occurred in central Montana where Geraldine (near) reported a "terrific duststorm" from 6 p. m.

of the 19th to 3 a.m. of the 20th.

Comparative monthly data.—Greatest precipitation total reported, 29.57 inches at Big Four, Wash. Highest temperature, 89° at two stations in Florida on the 6th; lowest temperature of the month, —42° at Pokegama Falls, Minn., on the 7th; also a minimum of —41° occurred at Outlook, Mont. Section averages: Highest temperature average, 61.7° for Florida; lowest temperature average, 15.0° for North Dakota. Greatest precipitation average, 7.10 inches for Alabama; lowest precipitation average, 0.36 inch for South Dakota. Section departures from normal: Greatest plus temperature departure, 4.8° for Kansas; greatest minus temperature departure, 1.3° for California. Greatest plus precipitation departure, 2.80 inches for New England; greatest minus precipitation departure, 0.46 inch for Louisiana. Only two stations reported no precipitation for the month, while seven stations reported less than 0.01 inch.

# THE COLD WINTER OF 1935-36

In very great contrast to recent winters, the 1935–36 winter season (December–February) was abnormally cold throughout central and eastern portions of the country. For a number of preceding years, the winters in general had been mild, especially the 5 years up to and including 1934–35. These five winters were much warmer than usual in practically all parts of the coun-

try; in the Central and Northwestern States averages were from 4° to 8° above normal.

The winter of 1935–36 was one of the severest we have experienced in many districts, being the coldest of record in some northwestern sections. The first winter month, December 1935, was rather uneventful in the western half of the country. From the Plains States westward, inclusive, the mean State temperatures averaged from a normal value in North Dakota to generally 1° to 2° above normal, except in Oregon, Idaho, New Mexico, Arkansas, and Texas, which were slightly below normal warmth. Eastward to the Gulf of Mexico and the Atlantic coast, without exception, mean monthly temperatures were generally moderate to decidedly subnormal. The magnitude of negative departures ranged from 2° in the Lake region and 4° in the New England district to progressively larger values southward over the Ohio Valley, Tennessee, the east Gulf and Middle and South Atlantic States. In the Virginias, Carolinas, Kentucky, Tennessee,

Alabama, and Florida the departures exceeded 7° below normal.

The average temperature values for the second and third winter months, January and February, 1936, were consistently below normal everywhere, except in the far Western States and over the middle Plateau section. The 2 months taken together established an unparalleled prolonged cold period commencing about January 15 and ending about February 20. The maximum severity of the widespread low temperatures centered in the north and central portions of the Mississippi and Missouri Valleys. The abnormalities of low temperatures are most strikingly illustrated by the following notations from the records of several first-order Weather Bureau stations for the 30 days ending around February 20: At St. Louis, Mo., the average temperature was 4° lower than the previous coldest 30-day period; at Kansas City, Mo., the 30-day temperature average ending February 21 was 8°, and at Detroit, Mich., 13°. At St. Joseph, Mo., the average for the 30 days ending February 20 was 7° lower than the previous low record, while at Topeka, Kans., it was 3° lower than the record winter of 1887–88. At Huron, S. Dak., the temperature was constantly below zero from February 3 to 19 while at Bismarck, N. Dak., it was continuously below zero for 15 days. At Williston, N. Dak., the highest temperature recorded between February 5 and 17 was 9° below zero, the lowest, —50°, and the average for the 13 days 26° below zero.

At Devils Lake, N. Dak., there was established a winter-temperature record that probably has no parallel in the weather history of this country for a first-order Weather Bureau station. At this place the temperature went below freezing on November 27, 1935, and did not thereafter rise to the freezing point until March 1, 1936, a period of 96 days. For 37 days, January 14 to February 19, there was only one day on which the thermometer registered as high as zero, while for the week ending February 17 there was an average temperature of 28° below zero, and for January and February 13° below zero. Relatively similar instances of low temperatures may be cited for other stations and portions of States in the upper Mississippi and Ohio Valleys.

The departure of mean winter temperatures from normal for the 3-month period averaged from 6° to as many as 12° below normal in the Central and Northern States, between the Appalachian and Rocky Mountains. Thus, in the northern Plains, for example, the 1935–36 winter season was from 15° to nearly 20° colder than the average of the preceding five winters. However, a considerable area in the Southwest had somewhat warmer than a normal winter. The severe winter temperatures abetted frost penetration to depths beyond previously established

DROUGHTS

extremes in those portions of many Central States without adequate snow cover. For example,

in Iowa the ground was frozen in many places to depths of nearly 7 feet.

For the 3 winter months period precipitation was heavy from the middle Atlantic area south-westward to the Gulf and considerably above normal in most sections between the Lake region and the Rocky Mountains; also, in the central and northern districts west of the Rockies. On the other hand, it was markedly deficient in the lower Ohio Valley westward to the Rockies, and also in a limited area in the far Southwest. Snowfall, as a rule, averaged above normal in practically all sections, except in the far Southwest. Falls were unusually heavy in the northern and middle Appalachian sections. Also, in the Plateau and Pacific States, and excessively heavy from the Lake region westward to the Rocky Mountains.

# THE 1936 DROUGHT

The weather of 1936 was decidedly unfavorable for agriculture over the greater portion of the United States, making the third year since 1929 with such conditions prevailing. Precipitation of the winter and early spring was very scanty in the Southwest, where the soil became extremely dry, and severe duststorms caused much damage by drifting and by blowing out winter wheat. However, in May there was a reaction to abnormally heavy rains, materially improving conditions; they were especially helpful to winter wheat over large areas, particularly in Kansas.

While the May rainfall improved the outlook materially in the Southwest, other parts of the country were less fortunate, and serious conditions slowly, but surely, developed over large areas. Dry weather in May and June brought widespread damage to early truck, hay, and pastures, the latter becoming very poor in nearly all sections between the Appalachian and Rocky Mountains.

The spring was the driest of record in many southeastern localities, and great harm resulted to early crops in considerable areas, especially from North Carolina southward and southwestward to central Alabama. The winter wheat crop was not seriously affected by the drought, principally because of May rains in the western portion of the Wheat Belt, and comparatively cool weather in the eastern part, though it became decidedly dry and some deterioration resulted, especially in northern districts.

The heat and drought seared what little pasture was left, and dried up available stock water. With neither food nor water to be had over large areas, the livestock situation became desperate, with heavy shipments necessary to prevent death of thousands from starvation and thirst. The spring wheat crop and other small grains in the Northwest were severely damaged, but conditions

continued favorable in the north Pacific area.

July was extremely dry throughout the interior of the country, with considerable areas having less than 10 percent of normal rainfall. On a State-average basis, there was less than half of normal (usually much less) in the western Ohio Valley, the Lake region, the upper Mississippi Valley, and throughout the Plains from Oklahoma northward to North Dakota and Montana. Kentucky and Ohio, with 91 and 81 percent of normal, respectively, were the only States between the Appalachian and Rocky Mountains north of the Cotton Belt having as much as half of the normal rainfall. The States from Oklahoma northward to North Dakota had only from 20 to 36 percent of normal; Minnesota had about 20 percent, and Iowa less than 15 percent. July 1936 was drier than July 1934 in every State from Kentucky, Missouri, and Oklahoma northward to the Canadian border.

The month was extremely hot, the hottest July of record in Indiana, Illinois, Minnesota, Nebraska, Kansas, Oklahoma, Iowa, Montana, and the Dakotas. The average temperature for the month was higher by far than the previous high record in a large north-central area. In North Dakota the monthly mean exceeded the previous high July record by 6° and the previous

maxima in South Dakota and Montana were exceeded by more than 4°.

An examination of table 3 based on regular Weather Bureau stations records and cooperative records clearly illustrates the widespread persistent heat wave over the interior sections during the summer months. For example, in Kansas beginning on July 9, of the 75 stations distributed over this State, generally, 50 and upward reported daily maxima of 100° or higher through August 26. Similar unbroken State-wide heat waves prevailed in Oklahoma and other agricultural interior States. Further on many days the daily maximum temperatures for a large percentage of the records examined, exceeded the 100 mark by several degrees.

# UNITED STATES METEOROLOGICAL YEARBOOK

Table 3.—Summary of selected stations with daily maxima of  $100^{\circ}$  or above

	tation														I	Day	of 1	non	th-														
State and month	Number of station records examined	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total
North Dakota:	51															,																	1
May June July August September	51 50 51 50	16	3		9	38	50 2	40	37 12	30	47 23	49		30 	10 7		46	45 1	3 40	8		16	2 10	13	9			14	8		11	28	8 26 11 3
South Dakota:  June July August September	41 41 41 51	1 30		21		36 1	41		35 35	40 17	39 18	38 25	31 3	12 25 3	16 14	23 40 32	40		12 39 10	1 36 2	4	15 5	35 1 20	27 25 1	27 33 14		24				1	13 7	12 29 23 3
Nebraska: June July August September	45 46 46 61	11	26	45			20 12		16 21		32	28 34 2	20 34	1 29 28	5 28 28 2	44 37	3 45 34	1 45 41	43	7 45 9	6 2 10	9 1 4	3 43 1	41 29	3 44 44	46	40	18	6	1		1 1	17 29 25 7
Kansas: June July August September	75 75 74 73	1 3 35	16 43 12	33	65 32 2	50	11 2 41	7 15 15	40	71	55 72 47	46 70 33	74	1 58 74 1	74	75	12 74 74	75	75	74 75 67	64 62 59	11	22 67 39	75 69	1 75 72	43 75 74	73 74 56	68 72 4	74 27	62 7 	9	 21	18 29 27 13
Oklahoma: April	49 48		1 36 37	22 38 6	27 45 8	6 38 31	33	 4 45 40	47	48	25 48	17 48 19	48	48	1 2 47 48	17 46 48	24 39 48	1 24 47 47	47 48 47	35 48 47	46 48 46	48 27 45	44 36 43	6 42 45	 41 47	 4 34 43	43	48	46	1 21 42 1	7		2 1 20 31 31 13
Texas: April May June July August September	54	1  5 1	6	6		13		19	- 29	1 1	2 44	5 4 45 9	34	31	1 5 30 1	22	18	2 15 10 18	11 20 20 1	6 29 14	1 14 24 15	14 17	29 8 17	13 9 29	5 5 27	5	8	13	14		6 11		4 5 28 26 31 20
Minnesota: June July August September			 1		3	2	36	33	25 4	16 1		43 2	44			22 23	35	16	-īī	2			5	1 1 1 8	1	5		2					3 18 7 1
Iowa: June July August September	45		4		31	44	41		27 2	38 34	45	45 2 13	31	45	45 21	45 29	42 20	45	13 41	13 16 10	18	 15	20 2	8 36		3 26 20	43	13	17 9				6 24 21 2
Missouri: June July August September	49	1		15 7		28 8 9	21 24		25 9 3	6 35 44	39 32 8	37 9 28	46 41 11	49 40 9	1 49 42 4	9 48 46 1	39 49	17 38 50	14 34 50		8	8 -47	2 17 47	38 40	42 37	3 42 36	42	46	30	47		5	17 27 25 13
Arkansas: June July August September	54 54 54 54	1		 5 13	2 11 21		2 1 20 14	1 4 15 18	3 8 23 18	13 12 52 14	50	38	34	33	34	42	13 49	17 52	43	25	17 46	2 4(	35 1 45	8 8 25 1		12 12	17	26	34	30	) 4		21 29 30 20
Wisconsin: JulyAugust	40 40					1	8	34	35	30		33	34		29	7 9		10	3 8	<sub>1</sub>							3	1					16
Illinois: June July August September	48 48 48 48				21	32 2	43	44	43		46		47	46 30	17	41 24	33	15 34 17	6	16 2	17		 1 39	17 21					18	1			8 24 22 4
Indiana: June July August September	49			<u>i</u>	 4 1	15	18	41	46	44 2			48	48	50	41			1	30	4	34	43	2 8			23		9		8		7 20 24
Ohio: June July August September	35 35 35 36							3	19	34	31	26			34	12	2	5 4	1	16	1	17	23	3			4	19	2		2 1		3 15 6
Kentucky: June July August	41 39 40 40	1					i	22	20	36	36	31 2	32 4 2		37 1 6	4	9	22	l			39	33	 7	4 5		19		22	2 1	3 24		12 17 21

The months of June and July combined had an average of only about one-third of normal rainfall in the Plains States and around 40 percent of normal in the western Ohio and middle Mississippi Valleys. In the interior States the 2-month period was much drier than the same 2 months during the great drought of 1934. In that year, for these 2 months, Missouri had about 30 percent more rainfall; Ohio, Kansas, Nebraska, and Montana about 50 percent more; Indiana, Illinois, Wisconsin, and North Dakota about twice as much; Minnesota and Iowa considerably more than twice as much, and South Dakota nearly three times as much rain as fell this year.

The 4 months of the growing season to the 1st of August were the driest of record in the Dakotas, Minnesota, Wisconsin, Iowa, Missouri, Illinois, and Indiana, and the second driest in Ohio, Kentucky, Oklahoma, Kansas, and Montana. Of the Central and Northern States between the Appalachian and Rocky Mountains only Michigan, Kansas, and Nebraska were

drier in 1934 than this year for these 4 months.

Of the major crops, corn suffered the greatest loss from the drought and heat of July. Up to the beginning of this month this crop had not been seriously harmed over wide areas, but in July the extremely high temperatures and lack of rainfall caused heavy losses, especially from the Mississippi Valley westward. The prospective crop was reduced during the month from

2,244,834 to 1,439,135 bushels, as reported by the Department of Agriculture.

August weather was characterized for the most part by a persistence of abnormal warmth and scanty moisture in the interior valleys and central and southern Great Plains. Maximum temperatures ranged up to well above 100° F. almost daily over a large area. Rainfall was of a decidedly local character, though scattered showers were rather frequent in the Northern States of the interior of the country. During August the drought extended southward to include most of Texas and Louisiana, Arkansas, Mississippi, and Tennessee, but in northern sections, from New England westward to the Plains, conditions improved materially. The weather continued favorable in most of the Southeast and much of the Atlantic area and also rather generally from the Rocky Mountains westward, though the Pacific Northwest became too dry

The summer (June-August) was the driest of record in Illinois, Missouri, Oklahoma, Kansas, Nebraska, and the Dakotas. In addition, while previous dry records were not broken, Indiana, Wisconsin, Minnesota, Iowa, and Arkansas had less rain in the summer of 1936 than during the same season in the drought of 1934. Previous high temperature records were exceeded in many

During the first 10 days of September widespread, drought-relieving rains occurred over much of the interior of the country, especially in the Lake region and the Mississippi and Ohio Valley States. The early September moisture brought only partial relief in the Plains States, except in Kansas, extreme western Oklahoma, and northwestern Texas, where good rains occurred. While the rain came too late to materially improve the corn crop, it was timely and of great value in conditioning the soil for plowing, for fall seeding, and for late forage crops to be used for pasturage.

Table 4 shows the percentage of normal precipitation by States or sections and the divisions thereof by months for the year and the crop-growing season, March to September, inclusive.

Table 4.—Percentage of normal precipitation by States and divisions thereof, for the year 1936

States and divisions	Jan- uary	Feb- ruary	March	April	May	June	July	Au- gust	Sep- tem- ber	Oc- tober	No- vem- ber	De- cem- ber	Crop season March -Sep- tember	Year
Alabama: Northern Middle_' Southern State	198 267 319 255	138 159 113 141	88 58 40 63	152 150 159 152	20 42 89 46	36 58 37 45	133 135 130 134	102 153 113 127	103 76 57 80	90 76 31 70	47 48 60 50	136 143 102 131	92 97 90 94	107 120 106 113
Arizona: Northern Southern State	40 81 63	157 140 151	121 92 108	28 16 22	39 41 30	68 45 59	103 101 101	114 85 97	133 110 119	146 58 100	43 118 86	229 153 176	100 88 93	108 98 103
Arkansas: State	25	52	46	55	50	31	129	12	140	158	81	124	64	72
California: State	104	220	52	97	63	238	272	130	36	99	4	136	75	111
Colorado: State	100	155	77	47	91	101	97	134	124	100	42	102	96	98
Pelaware: State	214	146	150	87	49	107	87	127	148	107	36	144	109	118

Table 4.—Percentage of normal precipitation by States and divisions thereof, for the year 1936—Continued

States and divisions	Jan- uary	Feb- ruary	March	April	May	June	July	Au- gust	Sep- tem- ber	Oc- tober	No- vem- ber	De- cem- ber	Crop season March -Sep- tember	Year
Florida: Northern Southern State	235 154 196	176 272 206	76 148 105	89 61 76	93 112 103	80 154 120	92 87 90	102 91 96	56 77 67	162 105 129	36 110 70	116 93 107	84 103 94	105 114 109
Georgia: Northern Middle Southern State	248 225 163 213	129 136 133 133	99 78 87 86	236 239 155 208	30 16 59 31	59 66 78 70	91 74 96 83	123 128 115 123	170 119 83 121	116 131 178 140	55 62 33 51	154 149 126 145	114 101 96 102	129 119 108 118
Idaho: Northern Southwestern Southeastern State	143 206 174 167	153 168 193 166	96 68 68 81	62 81 78 71	67 52 41 56	142 216 138 159	67 125 156 112	28 182 201 124	65 43 38 52	24 7 37 22	8 3 19 13	113 55 97 92	81 96 94 89	85 97 100 96
Illinois: Northern Central. Southern State	92 67 36 61	84 101 70 87	32 61 67 56	62 71 85 72	53 59 31 50	45 32 53 41	23 40 51 38	149 67 20 80	240 178 120 184	103 120 129 117	44 97 102 84	180 131 99 131	89 73 61 75	91 82 71 82
Indiana: Northern Central. Southern. State.	55 45 46 49	136 133 70 108	67 70 79 73	82 95 94 91	63 54 35 50	47 36 27 36	20 51 71 48	147 95 37 90	164 153 107 142	148 167 165 160	102 116 129 117	117 103 89 101	83 78 64 75	93 90 77 86
Iowa: State	156	122	59	41	71	62	14	98	187	71	41	130	79	82
Kansas: Eastern Middle Western State	105 114 110 108	33 18 12 23	11 5 13 10	52 41 40 46	101 115 196 126	27 35 37 32	22 27 33 27	24 30 53 34	183 180 125 169	91 103 75 93	23 3 3 14	153 130 115 135	65 66 76 68	68 67 73 69
Kentucky: State	69	58	102	121	38	20	91	60	120	127	101	114	78	83
Louisiana: Northern Southern State	76 121 107	66 102 91	40 46 44	71 104 93	82 125 111	15 11 12	125 99 104	51 99 87	42 82 70	104 55 69	107 91 97	97 88 91	64 83 76	75 87 82
Maryland: State	178	128	166	82	63	76	101	90	68	107	42	169	93	106
Michigan: State	102	107	50	83	66	65	38	128	154	107	58	109	85	89
Minnesota: State	101	190	126	64	80	46	22	93	72	35	86	182	65	73
Mississippi: Northern Southern State	92 149 122	75 116 98	65 35 57	76 116 99	43 78 61	33 33 33	115 121 119	42 67 56	67 71 69	110 24 68	85 74 80	114 129 122	64 76 71	77 89 84
Missouri: Northern Southwestern Southeastern State	108 27 24 44	88 69 66 73	33 31 50 39	59 48 79 63	65 58 34 53	28 28 37 31	19 39 68 41	25 23 19 22	197 229 190 206	93 122 146 122	53 79 <b>78</b> 71	144 132 123 131	65 67 67 66	73 73 77 77
Montana: West of Divide Central Eastern State	143 93 118 116	213 193 147 191	112 63 56 76	79 87 50 68	63 50 41 49	120 83 35 72	67 42 52 50	46 110 82 88	81 74 58 70	45 67 56 58	16 47 70 40	133 111 88 111	84 72 50 66	93 78 58 75
Nebraska: Eastern Central Western State	242 151 119 181	113 132 98 114	27 56 80 50	54 56 94 66	67 131 84 93	42 55 75 55	8 19 31 18	64 52 58 58	111 67 68 86	23 21 35 25	9 18 117 36	109 93 94 98	54 63 69 61	58 64 71 62
Nevada: State	118	245	61	39	51	158	214	104	71	136	14	181	85	116
New England: Northern New England Southern New England	183 180	87 84	242 199	145 101	100 70	75 101	83 59	101 127	72 107	153 114	72 46	179 205	115 111	123 118
New Jersey: State	153	86	140	89	76	133	52	87	121	100	37	172	97	105
New Mexico: Canadian and Northeastern Pecos and Southeastern Northern Rio Grande State	194 151 83 154	32 52 152 100	11 28 68 43	14 31 50 35	117 197 125 152	73 75 69 76	88 92 94 81	56 55 138 83	111 206 202 170	24 52 97 53	9 68 40 71	63 66 104 85	74 104 112 96	69 97 109 94

Table 4.—Percentage of normal precipitation by States and divisions thereof, for the year 1936—Continued

States and divisions	Jan- uary	Feb- ruary	March	April	May	June	July	Au- gust	Sep- tem- ber	Oc- tober	No- vem- ber	De- cem- ber	Crop season March -Sep- tember	Year
New York: State	121	81	180	116	78	69	54	111	193	137	91	118	135	103
North Carolina: Eastern Central Western State	164 232 232 208	115 120 114 116	169 144 126 146	119 187 162 157	26 7 32 22	109 114 43 90	117 130 101 117	79 79 103 85	95 115 144 118	192 185 175 181	116 75 54 82	186 161 149 163	102 109 100 104	120 127 118 121
North Dakota: Eastern	94 109 147 124	167 163 119 149	94 104 118 111	31 17 31 31	41 30 32 34	40 42 36 39	26 20 45 29	69 69 71 66	77 88 54 69	18 120 29 19	51 57 62 59	91 68 96 86	48 46 48 47	52 50 54 52
Ohio: Northern Middle Southern State	47 58 64 55	113 100 83 99	122 101 99 108	78 91 119 94	53 54 37 49	58 44 33 47	87 94 61 81	94 117 114 106	112 108 90 106	126 176 186 155	82 96 195 97	79 80 95 84	85 86 77 83	86 91 88 88
Oklahoma: Eastern	14 25 66 28	50 26 8 32	30 23 7 24	36 19 34 30	67 102 121 95	30 59 68 52	33 22 16 25	7 5 10 7	263 241 236 168	135 79 63 97	45 14 8 25	122 87 80 102	66 72 80 68	70 66 71 67
Oregon: Eastern Western	215 156	144 103	79 69	107 57	82 155	161 144	105 148	57 14	91 53	3 9	5 6	91 96	100 86	101 83
Pennsylvania: State	130	78	199	87	54	91	67	119	63	113	184	133	96	100
South Carolina: Eastern	138 252 213	113 114 114	134 134 136	198 298 261	21 8 13	79 77 78	72 102 87	79 91 85	88 130 109	201 201 201	76 74 76	154 152 153	89 115 104	105 133 122
South Dakota: Eastern Middle Western State	129 129 103 120	147 112 103 123	80 83 52 70	59 55 73 62	96 58 19 58	48 29 38 39	22 21 35 25	103 53 56 75	48 50 49 49	20 27 57 33	117 166 115 130	110 47 33 65	64 46 42 52	68 52 49 58
Tennessee: Eastern Middle Western State	186 80 50 106	105 63 55 71	138 128 100 125	118 100 56 98	31 29 33 32	31 16 28 25	127 187 182 151	83 41 15 55	109 70 155 101	126 142 119 140	57 128 92 86	129 131 129 140	92 82 77 86	105 91 82 95
Texas: Western Middle Eastern State	140 38 36 44	14 29 55 41	53 65 40 50	28 63 58 56	204 176 180 179	51 80 21 54	82 145 203 158	25 77 59 64	274 286 145 244	55 103 97 88	69 60 67 63	66 86 96 85	112 137 104 125	100 115 91 102
Utah: Northwestern Southern and Eastern State	181 43 131	244 208 230	94 103 95	66 35 55	44 48 44	233 163 212	294 130 259	154 147 150	41 73 55	147 165 150	75 34 62	177 238 191	110 118 112	137 128 132
Virginia: State	199	124	155	104	36	81	94	85	105	124	46	162	93	109
Washington (State): Eastern Western	146 153	104 135	87 114	66 45	70 180	237 204	52 190	33 94	82 80	15 29	6 16	92 129	98 119	85 104
West Virginia: Northeastern Northern Southern State	103	110 84 77 84	244 157 126 157	94 102 107 104	51 51 47 50	95 59 37 56	131 119 81 111	94 102 90 97	44 61 71 62	183 131 135 138	59 99 95 92	155 116 116 120	107 94 83 92	113 99 91 98
Wisconsin: State	. 109	134	89	51	75	57	28	159	95	92	49	140	79	84
Wyoming: State	126	197	100	72	25	114	118	116	61	93	70	96	82	94

# DROUGHTS IN THE UNITED STATES

Droughts in the United States may be divided into two general classes. In one class are those of a transitory nature, affecting usually a relatively small area and of comparatively short duration, frequently lasting only a single year; in the other those general drought conditions that have a tendency to persist for comparatively long periods of time. Smoothed weather records show long-time trends in precipitation, covering a good many years, alternately above and below normal. The short-period droughts are not usually definitely related to these more general long-time trends. When a minimum phase of precipitation obtains, such as is now being experienced, there occur at short intervals what may be called families of droughts, in contradistinction to the transitory, or short-period ones, that fall in the first-named group.

# DROUGHT PERIOD OF 1886 TO 1895

Prior to the minimum phase of precipitation responsible for the present family of droughts, so to speak, the last general condition of this kind occurred in the latter part of the eighties and the early nineties of the last century. At that time, following a series of years of rather abundant rainfall, widespread scanty moisture began in 1886; and while interrupted in 1892 by fairly abundant moisture, there was a marked tendency generally for subnormal rainfall from 1886 up to 1895, culminating in severe droughts in 1894 and 1895, the driest years of that minimum phase. The year 1896 had fairly good precipitation, but 1897 was deficient in moisture between the Mississippi River and the Rocky Mountains.

Following this general long-time drought there were several belonging to the transitory class, being short-lived, and often seriously affecting only comparatively small areas. Among these may be mentioned that of 1901 in the interior valleys and the Southwest. The following year, 1902, had plenty of moisture in most States. Another occurred in 1910, principally in the Central and Northern States and the South, but this again was largely a 1-year affair. Another one in 1917 affected principally the Southeast and northern Plains, and still another, in 1925, was severe in the South and Southeast. Thus for some 60 years up to 1930 there were a number of short-period droughts but only one persistent and markedly dry phase of United States climate, that of 1886–95, lasting, in general, about 10 years, but some years, of course, being better than others.

# DROUGHT PERIOD OF 1930 TO 1936

The present dry phase began in 1930 and continued with a few interspersions of fairly good years such as 1935 up to the present time. During this period there were three extremely dry years.—1930, 1934, and 1936. Table 5 shows the percentage of normal rainfall by States or sections for each year, 1930 to 1936, inclusive.

Table 5.—Percentage of normal precipitation by States

State or region	1930	1931	1932	1933	1934	1935	1936	State or region	1930	1931	1932	1933	1934	1935	1020
Alabama Arizona Arkansas. California Colorado Florida Georgia Idaho Illinois Indiana Iowa Kansas Kentucky Louisiana Maryland-Delaware Michigan Minnesota Mississippi Missouri Montana Nebraska	87 114 96 78 105 114 93 95 75 75 82 100 61 95 88 74 89 89 78 81 109	81 144 97 103 85 83 102 97 112 97 92 94 94 97 89 98 100 66 83	121 100 105 66 86 100 114 111 98 108 102 89 97 112 115 108 86 127 94 106 89	91 86 101 86 92 106 84 100 94 103 79 83 111 98 120 99 99 103 85	104 78 88 76 66 101 96 89 88 75 74 81 106 112 83 80 100 85 73 61	93 112 117 94 96 99 90 72 112 100 105 106 126 126 116 93 102 96 118 71	113 103 72 111 98 109 118 96 82 82 86 82 69 83 82 107 89 73 84 73 75 62	Nevada. New England. New Jersey. New Mexico. New York North Carolina. North Dakota. Ohio. Oklahoma. Oregon. Pennsylvania. South Carolina. South Dakota. Tennessee. Texas. Utah. Virginia. Washington. West Virginia. Wisconsin.	109 82 77 101 82 76	89 99 81 126 97 88 87 99 96 94 88 73 86 95 79 91 121 99 98 82	92 105 103 112 108 99 97 104 102 92 113 96 119 110 105 107 127 83 95	75 107 109 88 96 79 77 99 3 108 107 75 76 102 84 83 95 113 89 87	79 103 99 70 90 108 55 70 4 99 92 95 66 95 87 74 110 110 87 100 78	96 93 93 102 97 105 104 112 78 95 85 100 121 85 112 84 119 100 87	116 119 105 94 103 121 52 88 67 89 100 102 132 132 109 93 98 84

# EARLIER DROUGHTS

The few available precipitation records, covering 100 years or more, indicate that a general dry phase, somewhat comparable to that of 1886-95, and the more recent one of 1930 to date, obtained in the thirties of the last century, or approximately 100 years ago.

Some tree-ring records of the far Northwest indicate that there probably was a major minimum precipitation phase, at least in that area, soon after the middle of the eighteenth century, within the period 1755-80, with a succeeding maximum phase culminating about the beginning of the nineteenth century.

# WET PHASE OF 1865-85

The outstanding wet phase of the United States climate in the last century was from about 1865 to 1885, with a secondary maximum during the first two decades of the present century, though several transitory droughts were interspersed. All of the foregoing statements refer

specifically to the interior of the country east of the Rocky Mountains.

While study of the long weather records has not as yet disclosed a law sufficient to justify a forecast of future droughts, such study does give an historical background, which warns us that droughts in future may be expected, just as severe as those of the past. For example, the records show that in the early nineties, or some 40 years ago, there was a drought in the Dust Bowl just as severe as that recently experienced. Doubtless, when the present drought definitely comes to an end there will be a period of years with comparatively heavy rainfall, just as before, and little will be heard about duststorms and the like. But in the planning of a permanent farm program for such areas the basic considerations should include the practical certainty that dry climatic phases, at least as severe as in the past, will recur in the future.

# TORNADOES, 1936

In accordance with the practice established in 1916, and pursued each year thereafter, the tornadoes of 1936 are individually described in table 9, page 30. In particular, the form of presentation groups the tornadoes by States in alphabetical order, with the several tornadoes of each State arranged chronologically. The information has been furnished chiefly by the section directors of the Bureau, consequently descriptions of practically all tornadoes have previously appeared in print in the monthly section reports or were listed in the Monthly Weather Review's table, Severe Local Storms.

Owing to the receipt of additional information and sufficient time to study more closely the violent storms which occurred, some difference in detail and number for the year will be found as compared with the rather abbreviated summaries contained in the several monthly and De-

cember issues of the Weather Review.1

The result of later and more intensive considerations is the addition of a considerable number of tornadoes, some formerly overlooked or cataloged as nontornadic. In addition one or two storms previously classified as tornadoes are omitted from the accompanying compilation but are included, however, in the table on windstorms other than tornadoes.

# GENERAL SYNOPSIS

During 1936 there were 159 tornadoes in 34 States; none occurred in Alaska, Hawaii, Puerto Rico, District of Columbia, or the Virgin Islands. This number is 23 less than the total (182) for the previous year and ranks seventh in the order of greatest frequency of record. The years 1933, 1928, 1929, 1930, 1935, and 1927 had 260, 203, 197, 192, 182, and 164 tornadoes, respectively. As compared to normal (average for the period 1916–36), the number of tornadoes for 1936 exceeded the average by 23.

In addition, two towering waterspouts were reported over Lake Erie on the afternoon of July 30 and advanced inland in the vicinity of Conneaut, Ontario, incurring very little damage. These are published at the close of table 9, but are not included in the computations for the United States. On the same day early in the morning a storm described as "a vicious tornado swept in off Lake Erie in the form of a gigantic waterspout" somewhere along the Ohio-Lake Erie shore line. No definite information on this disturbance was obtained, and for that reason it is

being omitted from consideration in treating 1936 tornadoes.

About 56 percent of these disturbances occurred in the months of April, May, and June; during April, the month with the greatest number, there were 32, while May and June each had 28. The greatest monthly frequency in the preceding year numbered 43 during May. Tornadoes were reported somewhere in the United States every month of the year, except October. The monthly frequency for the remaining 11 months of 1936 were: January, 6; February, 4; March, 11; April, 32; May and June each, 28; July, 22; August, 11; September, 9; November, 1; and December, 7.

<sup>1</sup> Preliminary report on tornadoes in the United States during 1936, by J. P. Kohler, Monthly Weather Review, December 1936.

The total loss of life attributed to tornadoes during 1936 numbered 552, which is 482 greater than the 1935 figure and is the second-greatest annual toll during the 1916-36 period. Table 8, page 30, shows that only three other years, 1925, 1927, and 1917, with 794, 540, and 508 deaths, respectively, exceeded the 500 mark. Four hundred and ninety-two deaths were incurred in April, of this number 233 deaths were in Georgia and 224 in Mississippi. For the other months the number of deaths was: January, 20; March, 17; May and June, 10 each; July, 2; and December, 1. No deaths resulted from the occurrence of tornadoes during the months of February, August, September, and November. In most cases deaths were caused by flying debris, or collapsing buildings, but there were several instances in the major tornado catastrophes where persons were swept up by tornadic winds resulting in death.

The number injured from 1936 tornadoes totals somewhat in excess of 2,928, for in many cases injuries were described as "several injured" or "possibly additional number injured." More than 86 percent of the total injuries took place in April, with a figure of 2,539—1,496 were injured in Georgia alone, 719 in Mississippi, 148 in North Carolina, 55 in Tennessee, 36 in Iowa, and 30 in South Carolina. Ninety sight persons were injured in Moreh. 26 in Moy. 52 in and 30 in South Carolina. Ninety-eight persons were injured in March, 86 in May, 52 in December, 47 each in January and July, 19 in February, and 17 in September. No injuries were reported from tornadoes occurring during August and November.

Property losses that were reported as the result of tornadoes (crop losses included) were without question much less than the true losses, for it is seldom feasible to secure data for all parts of a long track, and often no trustworthy reports can be obtained. Estimated losses for 1936 amounted to \$26,228,550 which includes \$278,350 damage to crops—exceeding the 1935 losses by more than \$21,000,000. Only one other year, 1927, with a total damage amounting to

\$43,445,650 exceeds the 1936 figure.

Table 6 shows the destruction of 1936 tornadoes expressed in dollars by months for the various States or sections. On a State basis Georgia suffered the greatest annual loss, with \$16,117,700, the greatest portion of which was incurred in April. North Carolina ranks second, the damage amounting to \$2,073,000, and Texas third with \$1,313,000. In 1935 the State of Mississippi suffered the greatest loss, \$769,200, a figure overshadowed by the destructive series 2 occurring in the Southeastern States in the early spring. Several of the 1936 tornadoes took place without a single fatality and little or no financial losses. Disturbances in this category existed in the upper air and were observed or heard, but did not propogate themselves to the earth's surface. Also, one or two tornado occurrences in some of our Western States traversed, in many cases, barren land devoid of houses and crops; consequently, no destruction resulted.

Table 6-Tornado destruction in dollars, by months, during 1936

	1	T							9 111011	uno, u	uring	1900			
State or section	January	February	March	April	May	June	July	August	September	October	November	December	Crop	Property	Total
Arkansas California Florida Georgia Idaho Illinois Indiana Iowa Kansas Louisiana Michigan Minnesota Mississippi Missouri Montana Nebraska New England New Jersey New Mexico New York North Caro-	\$116,000 \$115,000 28,500 3 10,000		{ 1 \$5,000 32,000 (4 8) 150,000	(*) (*) (*) (*) (*) (*) (*) (*) (*) (*)		{ 1 \$250 3,750 (7) 41,000 700 10,000 1,125 2,000 (7)	94,000 { 11,300 52,400 16,000  3,000 200,000 (1 8 10)	\$40,000 }(2) 10,000 { (1 2,000	(²) {¹ 1, 000 24, 000	}	1 \$800	\$48,000	\$6,000	\$327, 000 100, 500 (2) 28, 700	\$327, 000 106, 500 (2) 44, 500 16, 117, 700
North Dakota See footnotes	at end	of tabl	e.	2, 015, 000	5, 000	50,000	{ 1 2,000 6,000	}					2,000	2, 071, 000 5, 000	2, 073, 000 5, 000

<sup>&</sup>lt;sup>2</sup> Tornado Disasters in the Southeastern States, by J. B. Kincer, Monthly Weather Review, May 1936.

Table 6.—Tornado destruction in dollars, by months, during 1936—Continued

	,						· · · · · · · · · · · · · · · · · · ·	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,,	orong	1000	COLLE	щиси		
State or section	January	February	March	April	May	June	July	August	September	October	November	December	Crop	Property	Total
Oklahoma Pennsylvania_ South Caro- lina		\$1, 500		\$251,000	143, 000	1 \$49, 900 213, 425 (9)			{ 1 \$500 1, 500				\$50, 900	(9)	(9)
South Dakota. Tennessee Texas.			ſ¹\$200, 000	202, 000	3, 000	(11)	\$300 { 1400 14,500						400	251, 000 23, 300 216, 500	23, 300
Virginia Washington Wisconsin			( 1,000,000 45,000	} 25,000	28, 000			(10)				\$10,000	200, 000	45, 000	
Crops Real property_	\$15,000 154,500		205, 000 1, 227, 200	23, 298, 300	500		5,000 4,900 399,400	(2)	2, 000 54, 300		\$800 None	108, 000	278, 350	35, 300 25, 950, 200	35, 300 26, 228, 550
Total	169, 500	19, 500	1, 432, 200	23, 298, 300	245, 200	422, 150	404, 300	72, 300	56, 300		800	108, 000			

Loss to crops.

2 Damage incurred; no estimate secured.

3 Additional damage of "Few hundred" occurred.

4 I instance wherein damage was incurred; no estimate secured.

5 2 instances of damage incurred, described as "Few hundred."

6 Additional damage incurred; no estimate secured.

7 No data obtained.

No data obtained.

8 Slight damage.
None reported
10 Few hundred.

11 Several thousand.

In general, 116 of the 159 tornadoes during the year occurred without a single fatality. Sixteen tornadoes incurred 1 death each, 6 with 2, 1 with 3, 4 with 4, 2 with 5, 1 with 6, 1 with 7, 1 with 8, 1 with 12, 1 with 14, 1 with 23, and 1 with 216 deaths; in addition, a series of 3 tornadoes (Oklahoma, Nos., 11, 12, and 13 in table 9) caused 3 deaths, a series of 2 tornadoes (Georgia, Nos., 13 and 14 in table 9) incurred 203 deaths, and a combination of 2 tornadoes (Iowa, Nos., 2 and 3 in table 9) joining and entering Minnesota (No. 1 in table 9) caused 3 deaths in the latter State. Ninety tornadoes occurred without a single death or injury. From a monetary standpoint 6 tornadoes incurred damage equal to \$100,000 but less than \$200,000, 3 with losses of \$200,000 or more but less than \$300,000; 1 with around \$310,000. Beyond these limits 1 tornado incurred losses somewhat in excess of \$1,000,000, 1 in excess of \$2,000,000, and a combination of 2 tornadoes on April 30 in Iowa emerging as one and passing into Minnesota caused losses amounting to \$1,135,000. Also, another combination of 2 tornadoes in Hall County, Ga., on April 6 caused damage estimated at \$13,000,000.

# SYNOPSIS BY STATES

Thirty-four States in all reported tornadoes during the year 1936. No tornadoes were reported in the following 14 States: Oregon, Nevada, Utah, Arizona, Colorado, Wyoming, Ohio, Kentucky, West Virginia, Maryland, Delaware, Maine, New Hampshire, and Rhode Island, nor in the District of Columbia.

In comparison with the 21-year average (1916-36) the occurrence of such storms was about normal in the Plains States, though the total number in Oklahoma and Kansas was considerably above normal. The number was somewhat below normal in the Ohio Valley and mostly normal in the upper Mississippi Valley and somewhat above the low averages for the New York and the New England districts. The number of tornadoes in the east Gulf States, excepting Florida, with four (two above normal) was decidedly in excess of the 21-year average. Alabama reported 10 tornadoes for the year as compared with an average of 6 and Georgia 16 or 13 in excess of the normal expectancy. Summarized geographically, the only territories entirely free of tornadic occurrence were the extreme eastern Ohio Valley, Oregon on the Pacific coast, and the Great Basin area.

Table 7 shows the number of deaths and injuries by months and sections for the year 1936. This table shows that the greatest number of fatalities and injuries occurred in the southern and southeastern parts of the country during the early spring months of the year.

Table 7.—Deaths and injuries incurred by tornadoes during 1936

		anu- ary		ebru- iry	M	arch		April	M	1ay	J	une	J	uly	Au	gust	Ser	otem er	Oc	tobe		vem- er		cem- cer	An	nual
State or section	Deaths	Injuries	Deaths	Injuries	Deaths	Injuries	Deaths	Injuries	Deaths	Injuries	Deaths	Injuries	Deaths	Injuries	Deaths	Injuries	Deaths	Injuries	Deaths	Injuries	Deaths	Injuries	Deaths	Injuries	Death	Injuries
Alabama Arkansas California Florida Georgia Idaho Illinois Indiana Iowa Kansas Louisiana Michigan Michigan Mississippi Missouri Montana Nebraska New England section: Connecticut Massachusetts Vermont New York New York North Carolina North Dakota Oklahoma Pennsylvania South Carolina South Dakota Tennessee Texas Virginia Washington Wisconsin	600	15			44	10	233 0 2  3 224	1 36	0	0 0 0 0 0 0 0 56		7 0 0 0 0 0 0 0 0 0 0 0	0 2	0 28		0		0				0	0	44	3 0 7	28 0 15 1, 508 0 0 0 36
Total	20	47	0	19	17	98	492	2, 539	10	86	10	23	2	47	0	0	0	17			0	0	1	52	552	2, 928

Several reported injured; no definite statement obtained.
 In addition, I instance of "Several injured," also in Hall County on Apr. 6, an additional number, 700, received first-aid treatment, not included in total.
 Possibly additional number injured.
 Additional number above total injured, see references per month.

#### BOUNDARY-CROSSING TORNADOES

Four 1936 tornadoes definitely crossed State boundaries. In order of time, the first disturbance, originated on January 18, about 7 p. m., in Washington County, Fla., continued across Jefferson County, Fla., the south and eastern portions of Houston County, Ala., about 9 p. m. and became extinct some time later in west-central Early County, Ga. The general direction of advance was northeasterly; total length of path (not continuous) approximately 73 miles, while the destructive width of the path varied from 100 to 1,320 yards. Very little damage occurred in Georgia. However, the Florida and Alabama areas affected suffered considerable losses. In Florida 7 deaths resulted, 15 injuries, and damage in excess of \$25,000, while in Georgia 1 death occurred, 10 injuries, and property damaged to the extent of \$10,000.

The second boundary-crossing tornado of the year was much more destructive, originating in the extreme eastern portion of Itawamba County, Miss., near 9 p. m., it passed into Alabama a few minutes thereafter, traversing portions of five counties, namely, Franklin, Colbert, Lauderdale, Limestone, and Madison, finally becoming extinct near the Alabama-Tennessee border about 11 p. m., April 5. No deaths or injuries, and very little damage resulted in Mississippi. The five counties in Alabama sustained an aggregate loss amounting to more than \$155,000; also, 12 persons were killed and 50 injured. The total length of path (not continuous) approximated 97 miles and the general direction of advance was northeast to eastnortheast.

The third and fourth boundary-crossing tornadoes were of a binary nature. On April 30, in the northern portion of Emmett County, Iowa, about 4:17 p. m., a tornado passed over the northern portion of Estherville, damaging 12 homes. A short time later a second disturbance traversed the southern edge of Estherville and tore up more than 800 feet of railroad track. Beyond Estherville the two disturbances followed generally parallel paths through Center Township, then joined for a short distance, then separated and once more united and continued as a single disturbance in southern Martin and west-central Faribault Counties, Minn. The general direction of advance was northeast to eastnortheast, and the total length of path (not

continuous) amounted to more than 45 miles. No deaths resulted in Iowa, 3 were incurred in Minnesota, while injuries numbered 40 in Minnesota and 21 in Iowa. The aggregate property

and crop damage amounted to \$1,135,000.

Owing to unusual tornadic activities in the Southeastern States, principally in Mississippi, Alabama, Georgia, and South Carolina during the first week of April, it is safe and reasonable to assume that the number of boundary-crossing disturbances should be somewhat greater than four for the year. This follows from the fact that public attention was focused upon the major tornadic disasters at this time, and isolated communities and small tornadic disturbances received little or no publicity.

The number of tornadoes during 1936, based on State occurrences, numbers 163, but enumerated according to origin and extinction, the number is decreased to 159—this is evident from the above discussion, one tornado being reported three times by States, one twice and the

two joint Iowa tornadoes reported as one in Minnesota.

# SPEED OF ADVANCE

The reports gathered on the various tornadoes are seldom sufficiently complete in detail to afford computation of the speed of translation. Nevertheless, several tornadoes during 1936 were quite closely observed and the time elapsing between two or more points obtained accurately enough to permit mathematical treatment. The highest speed of progression computed was 60 miles per hour for two tornadoes, one occurred in Jefferson and Arkansas Counties, Ark., on March 24, the other in Wilkes and Lincoln Counties, Ga., on April 1. The lowest translational speed, 22 miles per hour, evolved from the occurrence of a tornado which traversed portions of three counties (Pickens, Tuscaloosa, and Jefferson) in Alabama on the afternoon of December 6. In eight other cases considered lineal speeds figured, 41, 54, 50, 24, 44, 25, 36, and 35 miles per

# OUTSTANDING 1936 TORNADOES 3

The outstanding destructive 1936 tornadoes occurred during two series of unusual tornadic activity in six Southeastern States, namely, Tennessee, Mississippi, Alabama, Georgia, North Carolina, and South Carolina, in the first 6 days of April. Twenty-two individual tornadoes were reported, but the actual number probably somewhat exceeded this total, for tornadoes that occurred in thinly settled and isolated communities received little or no publicity, attention

being chiefly confined to the major tornado disturbances.

The first series, composed of 10 tornadoes, 1 in Alabama, 5 in Georgia, 1 in South Carolina, and 3 in North Carolina, occurred over a period of 13 hours. The first reported (Georgia No. 6 in table 9), took place in Wilkes and Lincoln Counties, Ga., on April 1, about 8:45 p. m. Another occurred at 11 p. m. the same day in northeastern Pickens County, Ala. From early morning (about 5-6 a.m.) to about 7:30 a.m., April 2, four tornadoes occurred in the southern third of Georgia (Nos. 7, 8, 9, and 10 in table 9), and one in Cabarrus County, N. C. Thereafter, activity ceased until early evening when, from 7 to 9:15 p. m., two disturbances occurred in North Carolina (Nos. 2 and 3 in table 9) and one in western Colleton County, S. C. (No. 1 in table 9).

Two tornadoes, in the first series, were highly destructive, the first (Georgia, No. 9 in table 9) occurring in central Crisp County, Ga., about 7:30 a. m., April 2. According to reports collected by the Weather Bureau director for the State of Georgia, G. W. Mindling, the tornado was first noted about 7 miles west of Cordele, when some timber was destroyed, but no other damage was done until the tornado was just a little outside the western city limits. The course of destruction continued with great intensity for about 2 miles across the city, including some property just beyond the eastern city limits. The course, northeasterly in direction, continued

for some 5 miles beyond the city before the tornado disappeared.

The havor wrought amounted to more than \$3,000,000. Twenty-three persons were killed and 500 injured. This tornado demolished 287 buildings of which 276 were dwellings. Of these dwellings over 100 were among the best in Cordele. The total length of path amounted to about 12 miles, with a width varying from 100 to 400 yards. The origin of this particular storm was about 25 and 44 miles respectively northeast of two disturbances; one occurring 6 a.m. in southeastern Terrell County and the second about 7 a.m. in southern Lee County. The Cordele storm possibly may have been a continuation or a redevelopment of the tornado occurring in southern Lee County.

The second highly destructive tornado in the first series was reported around 7:12 p. m., April 2, in east-central Guilford County, N. C., and pursued a course eastnortheasterly across

<sup>&</sup>lt;sup>3</sup> J. B. Kincer, Chief of the Climate and Crop Weather Division, Weather Bureau, Washington, D. C., treated in considerable length, in the May 1936, Monthly Weather Review, "Tornado Disasters in the Southeastern States." These storms proved to be the most outstanding in 1936.

central Alamance County, and terminated sometime between 8:15 and 8:30 p.m. in west-central

The following account and description was rendered by Lee A. Denson, Weather Bureau section director for the North Carolina section: "The most destructive tornado of record in the State occurred at Greensboro (Guilford County), April 2, beginning on the extreme west side at 7:12 p. m., and passing to the eastern outskirts at 7:20 p. m.; path 7 miles long, 50 to 800 feet wide, slightly winding and broken in places; 13 persons were killed and 144 injured; 289 buildings damaged, 56 being totally wrecked; estimated property damage, \$2,000,000. This storm appears to have passed one-half mile north of Mebane (Alamance County) about 8 p. m. and was traced in an easterly direction for 6 miles; estimated damage \$10,000; 1 person killed, 4 injured. Later slight damage occurred 3 miles from Hillsboro (Orange County)." In the last-mentioned county, no deaths or injuries were incurred. Property damage amounted to

only \$5,000.

The total length of path (not continuous) for the storm in question (North Carolina, No. 2 in table 9), approximated 38 miles and the average lineal speed computed from the various points passed, was 36 miles per hour. Vital statistics for the three counties were, 14 killed and

148 injured, and property damage amounted to \$2,015,000.

The second series of tornadoes, far more destructive than the first, numbering 12 in all, occurred during the early evening of April 5 and during the forenoon of the 6th. This series, in addition to being more disastrous than the first, was considerably more localized in respect to time and areas affected. On the 5th, in the brief space of 1½ hours, no less than six tornadoes occurred over an area embracing northeastern Mississippi, extreme northwestern Alabama and a few counties in Tennessee immediately adjoining these sections. Two occurred in Tennessee (Nos. 1 and 2 in table 9) and four in Mississippi (Nos. 1, 2, 3, and 4 in table 9). No. 4 in Mississippi, originating in eastern Itawamba County, crossed into Alabama as No. 7 (see Alabama in table 9) traversing parts of four counties finally becoming extinct near the Alabama-Tennessee border about 9 p. m.

The next outbreak of tornado activity was reported on April 6 in the northern third of Georgia and extreme northwestern South Carolina. The times of occurrence range from 8:27 to 10:05 a.m. During this interval five tornadoes occurred in Georgia (Nos.11, 12, 13, 14, and

15 in table 9) and one in South Carolina (No. 2 in table 9).

The most destructive in the first group of the second family of tornadose took place in the south and eastern portion of Lee County, Miss. This storm (Mississippi No. 3 in table 9) continued into western Itawamba County but very little damage evidently resulted in that portion of the latter county. The disturbance considered was first noted about 8:55 p. m. Sunday, April 5 in the western suburb of Tupelo. It destroyed a good portion of the western suburb and then laid low a broad swath averaging about 400 yards from the southwest to the northeast throughout the residential section of the city. Many buildings of substantial construction were demolished, 216 persons were reported killed and 700 injured and property loss in Tupelo and vicinity amounted to \$3,000,000. In the path cut through Tupelo many structures were destroyed, some partly destroyed and others scarcely damaged at all. An investigation conducted by the Mississippi State Geological Survey, Bulletin 31, "Tupelo Tornado" brings to light considerable information bearing upon selective tornado destruction. The report shows in the main that buildings constructed of substantially good brick, strong cement mortar, and tied in properly with internal construction endured the tornadic forces with the least amount of damage.

The group of tornadoes in the second series which took place in the northern part of Georgia during the forenoon of April 6 proved to be the most destructive for the year. About 8:27 a. m. (Georgia, No. 12 in table 9), a tornado struck Brenau College campus on the northeastern outskirts of Gainesville. The path was narrow, incurred no injuries or deaths and only slight property damage. A few minutes later near 8:37 a. m. two funnel-shaped clouds (Nos. 13 and 14 in table 9) some distance apart, appeared on the western outskirts of Gainesville. Relative to this instant, the Weather Bureau section director of Georgia, George W. Mindling, made the following comment: "These two paths came together west of Grove Street and an area four blocks in width was laid waste clear across the city beyond which separate courses of destruction

again appeared.'

The storm was attended by winds of most violent force. One of the most striking examples of this power was exhibited in the destruction of the courthouse; the courthouse bell, weighing 1 ton, was transported 350 yards. About 750 houses were utterly demolished, more than 200 badly damaged, while the business section of the city was almost completely destroyed. The loss of life reached the appalling total of 203 while 934 others were injured and an additional 700 required first-aid treatment. Property losses were estimated at \$13,000,000.

The group of tornadoes comprised in these two series, 10 in the first and 12 in the second, probably ranks third in destructiveness in the tornado history of the United States. The

number of people reported killed was 497, injured 2,511, not counting an additional 700 that received first-aid treatment in the Gainesville disaster, while property losses were in excess of \$21,760,800. If we consider the tornado that occurred in northeastern Arkansas, Izard County, (Arkansas, No. 5 in table 9) at 2:00 p. m., April 5 to be associated with the series, the various totals would be increased by one death, four injuries, and \$40,000. From the standpoint of comparison, there is a record of a series of tornadoes supposed to have included some 60 separate storms which occurred in several Southern States during February 1884 with an estimated loss. of life approaching 800. The other tornado disaster superior to the 1936 series was the so-called "tri-State" tornado of March 18, 1925, in the Middle West causing more than 700 deaths; people injured numbered around 3,000.

Aside from the severe tornadic activity in the Southeastern States on March 24 (Texas, No. 1 in table 9) Gregg County in northeastern Texas was visited by an exceptionally destructive storm in the early morning. Fortunately no deaths or injuries were incurred but destruction, mostly to oil well derricks, amounted to \$1,000,000 and crop losses an additional \$200,000. Another instant of severe tornadic activity took place over four adjoining counties in Iowa and Minnesota on the afternoon of April 30. (See Iowa's No. 2 and 3 and Minnesota's No. 1 in table 9.) In all, 3 persons were killed, 61 injured and property damage totaled in excess of

\$1,135,000.

The atmospheric conditions from the standpoints of pressure distribution, type of air masses, winds aloft and temperature gradients responsible for the disastrous southeastern tornadoes series are discussed briefly by the Meteorological Physics Division of the Weather Bureau as

follows:

"Eight of the storms in the first series apparently occurred with the passage of a Pc surface cold front under-running Ta air. It seems then that the cold front must have had something to do with these tornadoes or at least must have furnished the "trigger action" that set them off. Naturally, tornadoes are not found along all cold fronts between Pc and Ta air so there must have been some unstable conditions in these particular air masses themselves that favored the

formation of the tornadoes.

"The only airplane observation in the Ta air mass on April 1 was taken at Pensacola. This observation showed stable conditions at low levels and conditionally unstable air above 1,500 meters. However, it is interesting to note that at the 1,000-meter level there was a specific humidity of 12.5 grams per kilogram, and a relative humidity of 92 percent. Five hundred meters higher, the air had the same temperature, thus showing at first stable conditions, but the specific humidity at the level of 1,500 meters was 4.9 grams per kilogram with a relative humidity of 34 percent. In other words, this layer of air was convectively unstable. If now we have a steep cold front, as was apparently the case in this situation, that suddenly pushes the particles of the Ta air ahead of it up 1,000 meters this stable layer would become unstable with respect to dry air for a very short space of time. Adjustment to equilibrium would occur so suddenly and with such velocity that a series of tornadoes could develop.

"Humphreys 4 states that tornadoes occur when the gradient winds are extremely strong. With both series there were SSW to SW winds of 38 to 55 miles per hour in the Ta air. In the series of April 1 and 2 there were winds of 25 to 35 miles per hour from the N or NW, west of the front, and on April 5, 25 to 35 miles per hour west of the front. Possibly there was enough of a

torque action to form strong eddies between these two air masses.

"The tornadoes that appeared April 5 differed from those of April 1 in that they occurred 50 to 100 miles ahead of the cold front. The surface analysis was similar to that of the first series with one exception. On April 4 a mass of Npp air with dry Tp or S air aloft was found over Texas and Alabama. With clear skies this air was heated rapidly during the day causing a steep lapse rate which was shown on the Oklahoma City airplane observation. This air was also very dry. The air at Pensacola and at Shreveport was comparatively stable and moist. The air at Oklahoma City was 3° warmer than at Shreveport in the lower 1,500 meters, but due to the steep lapse rate it was probably colder above 2,000 meters. The Shreveport flight did not go above 1,500 meters

"With the wind WSW to W, 21 to 35 miles per hour in the Npp air it could be carried eastward over the Ta air. The Npp air would only over-run a shallow layer of Ta air; above 2,000 meters it would be colder and therefore act as a cold front aloft. The tornadoes would form just behind the upper-air cold front where, due to the coldness of the air aloft, the stability which characterized the Ta air ahead of the front would no longer exist and it would be easier for the lower, moist air to penetrate upward into the overlying air. The first convection or turbulence current to penetrate into this upper air mass from the west would encounter a very unstable medium for moist air, with a lapse rate of 8/10 or 9/10 of the dry adiabatic. The convection

<sup>4</sup> Humphreys' Physics of the Air, p. 210. 44373-38-3

would become violent after the first Cu-Nb clouds had broken through into these unstable strata and tornadoes might have formed where these upward blasts were the strongest. After a certain length of time this violent overturning would cease with the attainment of nearequilibrium conditions through mixing."

#### SUMMARY FOR PAST YEARS

Table 8 gives the total number of tornadoes, deaths resulting from such storms, and the estimated property losses for the years 1916-36.

Table 8.—Deaths and property loss caused by tornadoes, 1916-36

Year	Reported	Aggregate loss of life	Aggregate reported property losses	Year	Reported	Aggregate loss of life	Aggregate reported property losses
1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928	Number 86 121 81 65 87 106 108 100 130 119 111 164 203	140 508 134 205 498 202 133 109 376 794 144 540 92	\$2, 511, 500 15, 007, 700 7, 631, 200 6, 861, 500 15, 205, 000 5, 406, 300 6, 630, 000 2, 958, 750 24, 023, 900 4, 318, 950 43, 445, 650 13, 235, 600	1929 1930 1931 1932 1933 1934 1935 1936 Total	94 152 260 147	274 179 36 394 362 47 70 552 5, 789	\$10, 049, 400 12, 239, 100 3, 215, 400 8, 988, 525 16, 190, 640 4, 732, 930 26, 228, 550 259, 476, 395 12, 356, 019

#### ITEMS OF TABLE 9

Where two or more county names appear, the word "and" between them or next to the last named county, indicates that the tornado path began in the first and continued in the order named, and was confined to those counties unless it was one of the few tornadoes that crossed a State boundary, in which case only the portion within the single State is indicated. Frequently braces are used, especially in cases where it is possible to present statistics for each county. Notations immediately after county names, such as (N.), (NE.), (E.), and (E.-C.), etc., indicate respectively, North, Northeast, East, and East-Central, etc., portions of the counties in which the disturbances occurred.

The direction of advance is usually entered to 8 points of the compass, but occasionally to

16 points when sufficient detail exists. If the tornado changed direction, the curvature of path is outlined by 2 directions separated by a hyphen.

The length of path of a "not-continuous" storm is not the length devastated, but the entire distances from first havoc to last. The width of the path is usually the mean width, but occasionally the width has varied sufficiently that the limits of variation are given, that is, the minimum It will be noted that in several instances the tornadic character of a and maximum widths. storm is given as somewhat doubtful, but in these cases the presence of marked rotary winds over a rather narrow area was taken as sufficient evidence to classify the storm as a tornado.

Table 9.—Tornadoes of 1936, arranged by States

State, number, and date	Time	County	Direction of advance	Length of path	Width of path	Killed	Injured	Property losses	Remarks
2. Jan. 18 3. Jan. 18	3 a. m	DeKalb (EC.) Shelby (E.) Dale (N.) Houston (S. and E.)	ENE.  NE ENE.	Miles 15 1½ 1½ 220	100	Number 4 0 1 2 1	Number 8	Dollars 100, 000 4, 000 2, 000 2 10, 000	Several homes destroyed. Heavy rain followed disturbance. Occurred more than 70 miles SW. of No. 1. Occurred more than 90 miles SSE of No. 2. 1 Continuation of Florida No. 1. 2 Figures for Alabama. Path not continuous. Continued into Ge-
See footnotes	at end of table.				'		- 1	-	orgia as No. 1.

Table 9.—Tornadoes of 1936, arranged by States—Continued

	1		0) 100	-,	rigica og	Diaco	Cont	mueu	
State, number, and date	Time	County	Direction of advance	Length of path	Width of path	Killed	Injured	Property losses	Remarks
ALABAMA-con.									
5. Feb. 14 6. Apr. 1	3:30 p.m	Henry (N.) Pickens (NE.) Franklin (NW.)	NE	Miles 16 1	Yards 200 300	Number 0 1	Number 1 5	Dollars 3, 000 5, 000	
	(2)	Frankin (NW.)	- NE	21	400	8	50	145, 000	
		Colbert (S. and E.)		26		0	0	(9)	Traversed Colbert County; no damage reported. <sup>2</sup> Be- tween 9 and 10 p. m. Path
		Lauderdale (SE.)	ENE	14	400	0	5	5, 000	not continuous.  Lauderdaie County adjacent and north of Colbert County. Lineal speed 41 miles per hour from Frank-
17. Apr. 5		Limestone				0	0	(9)	miles per hour from Frank- lin to Lauderdale Counties. Limestone County adjacent and east of Lauderdale County. Path not con- tinuous. <sup>2</sup> Between 10:20
	11 p. m	Madison (ext. NW.)		6	400	4	3	5, 000	and 11 p. m. Terminated near Alabama- Tennessee border. Lineal speed about 54 m. p. h. from Lauderdale to Madi-
	1			3 97					son Counties.  3 Approximate mileage. Path not continuous, and details for Colbert and Limestone Counties lacking, but time element, direction, and geographical area affected point to the operation of a
	12:30 p.m	Pickens (SE.) Tuscaloosa 1	ENE -	12 38		0	5	6,000	single disturbance. Inception near Olney.
8. Dec. 6		Jefferson (W. and C.).		25		1	7	4,000	of county.
				2 75	(3)	1	10	20, 000	Terminated north of Birmingham.  Approximate total miles
	About 4 p. m	Shelby (S.)	NE	10	200	0 0	2	1, 000 2, 000	traveled, path not continuous. Speed of advance about 22 m. p. h. <sup>3</sup> Width varied from 100 to slightly more than 1,300 yards.  Inception about 70 miles almost due E. from origin of No. 8. Shelby County N. and adja-
ARKANSAS	6:30 p, m	Chilton (S.)	ENE.	4	200	0	10	15, 000	cent to Chilton County. Details lacking.
	11 n m	To A (GT)							
		Izard (SE.)		(5)	100	0	0	1, 500	Path of greatest destruction 50 yards.
		Nevada (S.)		(5)	50	0	0	500	Path of greatest destruction about 25 yards.
		Jefferson (NC.), Ar- kansas (NW.), and Prairie (S.).	NE	35	1,760	0	4	30,000	Origin about 120 miles NE. of No. 2. Destructive winds in northwest Ar- kansas County, extending over area 8 miles wide, near Stuttgart. Average speed about 50 miles per
4. Mar. 24	4:30-5 a. m	Jefferson (EC.) and Arkansas (N.).	NE	30	1, 760	0	0	° 5, 000	hour. Path practically parallel to that of No. 3 and 8 to 11 miles south. Average lin-
				6 10 4	440 40–880	1 2	20	40, 000 20, 000	eal speed 60 m. p. h. Very little damage to crops. Very little damage to crops. Origin 3 miles SE. of
7. May 9	(1 4)	Hempstead (NW.)	(4)	(5)	(6)	0	0	500	Horatio.  Property damage. Occurred 2½ miles E. of Ozan and 39 miles E. from No. 6  ¹ Time unknown but most probably occurred between
		Benton (C.)			(6)	0	0		2-6 p. m. Rural property destroyed.
	5:45 p. m	Logan (NC.)	E	(4)	100	0	0 {	6,000	Rural property damaged.
CALIFORNIA  1. July 5	3 p. m	Imperial (NE.)	NE	5-8	1, 960	0	0	(10)	Some damage to automobiles by blowing sand. Disturbance accompanied
	(4)at end of table.	Sonoma	(4)	3	(4)	0	0	(10)	by lightning, thunder, and rain. Rural property damaged.

Table 9.—Tornadoes of 1936, arranged by States—Continued

			ABLE 9.—Tornadoe	es of 193	36, arro	inged by	y States	Con	tinued	
State, n	umber, late	Time	County	Direc- tion of ad- vance	Length of path	Width of path		Injured	Property losses	Remarks
FLOR		7 p. m	Washington and Jack	- NE	Miles 2 35	Yards 2 100	Number 2 7	Number <sup>2</sup> 15	Dollars <sup>2</sup> 25, 000	<sup>1</sup> Continued into Alabama as No. 4. <sup>2</sup> Figures for Flor- ida—property loss mean of estimates, also number of injured. First appearance of storm 17 miles SW. of
2. Jan. 1 3. May 2	9 27	9:15 a. m 3:45 p. m	Lake Escambia	NE		167 17	0 0	0	3,500 • 15,000 200	Chipley; path not continuous. Crop damage mostly citrus. Began as a waterspout over
4. Nov.		1 p. m	Polk	wsw.	2	100	0	0	¢ 800	east Pensacola Bay. <sup>1</sup> Distance traveled over land. Orange trees and fruit damaged.
<sup>1</sup> 1. Jan. 18	8	(4) p. m	Early (WC.)	NE	2 18	(4)	20	2 ()	(2 12)	<sup>1</sup> Continuation of Alabama No. 4. 2 houses blown down, others damaged to
			- Calhoun (E:)			(4)	7	(8)	10, 000	a lesser degree. <sup>2</sup> Figures for Georgia.  6 barns destroyed, 15 head of of livestock killed. Huge concrete pillar at Edison blown away; never found. Water tank carried nearly 14 mile. Possibly a reappearance or continuation
3. Mar. 1	6	9:30 p. m	Richmond (NE.)	- E	(8)	<b>(</b> 6)	0	0	(10)	of No. 1. Garage demolished, other building damage occurred
4. Mar. 1	6	Between 11-12 p. m.	Richmond (NE.)	- ENE.	4	(4)	0	10	(12)	in suburb of Augusta.  2 houses completely destroyed and 5 others damaged. Occurred within a
5. Mar. 2	0	(2)	Richmond (NE.)	E	(5)	(4)	0	0	(12)	4-mile radius south of Augusta business district. Occurred 3 miles west of Au- gusta Weather Bureau of- fice. Small garage upset and 4 houses damaged. Considerable damage to trees.
6 Apr 1			Wilkes (N. and E.)		10	(4)	5	50		Inception near Tignall; 40 houses completely destroyed, also 5 barns and a store. Considerable livestock
0. Hjn. 1.	*****	9 p. m	Lincoln (W-C.)		7	(4)	0	2  -		killed. At Lincolntown and vicinity more than 50 houses wrecked or damaged.
7. Apr. 2		6 a. m	Terrell (SE.)		1 17	200 500				<sup>1</sup> Total length of path (not continuous); average speed about 60 m. p. h. <sup>2</sup> Aggregate loss for both counties.
			( 241/	E	(4)	200–500	1	(8)	3, 000	Disturbance occurred near Sasser. Rotary wind
			Lee (S.)		1-11/2	400	1	8	4, 300	movement very evident from position of fallen trees. Occurred near Leesburg, 10 miles E. of No. 7. Funnel cloud dipped to earth oc- casionally, striking 4 local- ities. Lee County east of and adjoins Terrell
o. Apt. 6		rov a. III	Crisp (C.)	NE	12 1	00-400	23	500 3,	000, 000	County. Origin 35 and 44 miles, respectively, NE. of Nos. 7 and 8. Possibly a continuation of No. 8; SE. part of Crisp County, adjoins NE. extremity of Lee County. Tornado noted first about 7 miles SW. of Cordele and cut through town and terminated at a point 5 miles beyond. 287 buildings were totally demolished. of which 775
10. Apr. 2		Early morning.	Tattnall (S.)	ENF	1.0	200				were dwellings. See p. 27 for detailed discussion of No. 9.
			Cobb (NW.)		1-2	300	0	0	(10)	Not severely destructive. Occurred 70 miles or more
	- 1	t end of table.	(IV W.)	NE	8	(6)	0	2	(10)	east of Nos. 7, 8, and 9. Origin about 1 mile N. of Acworth. 4 houses, a grist mill, and store demolished.

Table 9.—Tornadoes of 1936, arranged by States—Continued

	1			o, arra	nyeu og	j Blates	Cont	muea	
State, number, and date	Time	County	Direc- tion of ad- vance	Length	Width of path	Killed	Injured	Property losses	Remarks
GEORGIA-con.									
12. Apr. 6	8:27 a. m	Hall (C.)	ENE	Miles 2	Yards (6)	Number 0	Number 0	Dollars	Struck Brenau College campus, outside of Gaines
13. 14. Apr. 6	Few minutes after No. 12 (near 8:37 a. m.).	Hall (C.)	ENE	7	300-400	203	1934	13,000,000	ville, and continued into New Holland.  An additional 700 required first-aid treatment; Nos. 12, 13, and 14 occurred slightly more than 50 miles
15. Apr. 6	About 10 a. m	Franklin (NE.)	ENE	(4)	(4)	0	0	(12)	ENE. of No. 11. For extended remarks on Nos. 12, 13, and 14 see p. 28.  No details available, but occurred more than 40 miles ENE. of Nos. 12, 13,
16. July 3	About 9 p. m	Bibb (ext. S.)	(4)	(4)	880	0	2	200 200	and 14. Funnel-shaped cloud observ- ed. Damage chiefly to peach orchards.
1. June 7	12:30 p. m	Nez Perce (E.)	E	3/4	200	2	0	{ 3,750 ■ 250	House and barn demolished; removed all water from a small pond.
	3:40 p. m	Whiteside (NW.)	(4)	(4)	(4)	0	0	(4)	Funnel-shaped cloud ob- served. In vicinity straight-line winds incur-
INDIANA									red \$27,000 damage, principally to factory property—damage included in table 11, p. 42.
1. Apr. 30	Between 3-4 p. m	Whitley (E.)	E	(5)	(6)	0	0	(11)	Rural property damage.
IOWA	(3 p. m	Clay (NW.)	NE	}		( 1	(8)	90, 000	Origin Clay County; probably manifested 1 hour
1. Apr. 30				20	175–300				earlier in severe windstorm 30 inlies westward at Shel- don in O'Brien County. Destroyed completely buildings and machinery on 8 farms and incurred considerable damage on 10 more.
	((4)	Dickinson (SW. and C.).	NE			1	15	215, 000	Tornado lifted east of Terrace Park—see note (!) under No.3. Destroyed completely property on 12 farms and incurred damage on an equal number. In addition destroyed 21 cottages at Terrace Park. Path not continuous. Average lineal speed 24 miles per hour. Undoubtedly No. 1 during part of its path was attended by subsidiary tor-
\$2.)	4:17 n m	Erromot (NT)							nadoes; 2 funnel-shaped clouds were observed N. of Milford and a water-spout over West Lake Okobojil, but details are lacking.
Apr. 30	7.11 p. III	Emmet (N.)	NE	2 20 2	175-300	3 0	2 21 2	285, 000	Short elapse of time dis- counts reappearance of No. 1. Passed over north part of Estherville, dam- aged 12 homes. Inception 15 miles ENE. from termi-
33.)	(1)	Emmet (N.)	NE					1	nation of No. 1. <sup>2</sup> Aggregate value for Nos. 2 and 3. Appeared a short time after No. 2 and traversed south edge of Estherville. Tore up 800 feet of railroad track; possibly a redevelopment
								3	of No. 1. Beyond Estherville Nos. 2 and 3 followed generally parallel paths across Center Township, and joined for short distance, then sepa- rated and once more united and passed into Minnesota
See footnotes a	t end of table.			1			1		as No. 1.

Table 9.—Tornadoes of 1936, arranged by States—Continued

		1 201764000	0) 100	-, w//w/		States	-0011	inueu	
State, number, and date	Time	County	Direction of advance	Length	Width of path	Killed	Injured	Property losses	Remarks
IOWA—contd.				-					
4. Apr. 30		Dallas (N.)	NE.	Miles	Yards		Number	Dollars	0 1 100 - 100 - 11-
5. June 29			1	1	500	0	0	3, 000	Occurred more than 100 miles south of Nos. 1, 2, and 3.
	Between 4-5 p. m.	( , , , , , , , , , , , , , , , , , , ,			(1)	0	0	11, 000	Area of damage 1 mile wide. Path not continuous.
	5 p. m	Codon (Q)	1	}	880	0	0	30, 000	Property damage.  Occurred in area of strong
			1	1			0	14, 000 c 500	straight-line winds.
9. Sept. 6	6:30 p. m	Humboldt (NE.)	NE	(5)	100	0	0	3,800	Occurred slightly more than 80 miles ESE. of No. 7. Occurred about 60 miles
KANSAS			15		(-)			10, 000	ENE. of No. 8.
1. May 7	5 p. m	Finney (C.)	NE	30	100	0	0	1, 500	Damage to buildings. Sev-
					100		· ·	1, 500	eral funnel-shaped clouds observed near origin.
2. May 7	8 p. m	Ness (C.)	NE	. 2	<b>3</b> 5	0	0	800	Damage to buildings. Passed through Ransom. Origin nearly 60 miles NE.
3. May 11	11:42 a. m	Ford (C.)	SE			0	0	None	of No. 1. Small tornado. Funnel cloud did not reach ground; about 2 miles N. of Dodge
4. May 11	5 p. m	Clark (NW.)	(4)			0	0	None	City. Small tornado. Funnel- shaped cloud did not con- tact ground. Occurred
5. May 22	2 p. m	Ford (C.)	NE			0	0	None	about 24 miles SSW. of No. 3. Small tornado. Occurred 6
									miles E. of Dodge City. Funnel-shaped cloud did
6. May 22	4 p. m	Marshall (SE.)	(4)	3/4	20	0	0	(11)	not contact ground.  Occurred in northeastern part of the State, whereas No. 5 occurred in south-
7. June 5	1 p. m	Ford (NE.), Hodge- man (SE.), and	ENE_	25	100	0	0	2, 000	western portion. Rural property damage. 1 large and 4 small tornado
8. June 5	2:30 p. m	Edwards (NW.). Stafford (SE.)	E	4	440	0	0	200	clouds observed.  1 farm struck. Origin about 38 miles ENE. from termi-
9. June 26	8 p. m	Gove (NE.)	(4)	2	440	0	0	500	nation of No. 7; possibly reappearance of same. Numerous small buildings
									destroyed. Disturbance attended by hail, incurring \$17,500 damage—included in table 10.
	}	Saline (N.)			(1 2)	0	0	15, 000	<sup>1</sup> Path not well defined. Hail in vicinity of disturb-
11. July 27	5-5:30 p. m. <sup>1</sup>	Ottawa (S.)	E	(1 4)	(1 4)	0	0	(1 4)	ance. Small tornado. ¹ Details lacking, but disturbance occurred about the same time and 8-10 miles N. of No. 10. Hail reported in
		Washington (N.), and Marshall (NW.).		20	3, 520	0	0	4, 000	vicinity.  Path not well defined.  Rural property damaged and destroyed. Origin about 60 miles NNE. of
13. July 27	6 p. m	Dickinson (N.)	(4)	4	(4)	0	0	75, 000	No. 11. Rural property destroyed. Path not well defined. Attended by violent
									straight-line winds and occurred in region of severe thunder squalls. Origin about 25 miles E. and 22 miles ENE., respectively from termination of Nos.
14. Aug. 1	5 p. m	Montgomery (SW.)	NE	21/2	1,760	0	0	25, 000	10 and 11. Rural property damaged and
15. Aug. 14	4 p. m	Osage (NE.)	ENE.	4	100	0	0	(11)	demolished.  Several funnel-shaped clouds observed below black storm clouds. Damage to communication lines. Winds not tornadic; damage to buildings to extent of \$2,800 in Osage County and adjoining Douglas County; included in table
16. Aug. 14	6 p. m	Johnson (N.)	E	2	880	0	0	5, 000	Winds, not tornadic, incurred an equal amount of damage: included in table
See footnotes	at end of table.	1					1	1	11. Origin about 40 miles NE. of No. 15.

Table 9.—Tornadoes of 1936, arranged by States—Continued

								011,0001	
State, number, and date	Time	County	Direction of advance	Length	Width of path	Killed	Injured	Property losses	Remarks
KANSAScontd.  17. Aug. 20  18. Aug. 21		Jewell (E.) Brown (SE.)	NE	Miles 8	1 320	Number 0 0	Number 0 0	Dollars 10, 000 None	Rural property losses. Tornado cloud did not contact the ground. Wind, not tornadic, incurred dam-
LOUISIANA  1. July 2	4 a. m.	Sabine	NE	2	40	0	0	¢ 300	age of \$200; included in table 11.
		Richland (E.) and			100	2	28	2, 400 ( ° 1, 000	Path not continuous. Average lineal speed about 44
MICHIGAN		West Carroll (S.).			100	2	20	50,000	miles per hour. Origin more than 100 miles NE. from No. 1.
1. June 27 MINNESOTA	About 4 p. m	Gogebic (W.)	(4)	(5)	(6)	0	0	10, 000	Completely destroyed 1 large barn and damaged another.
<sup>1</sup> 1. Apr. 30		Martin (S.) Faribault (WC.)		} 25	2, 640	3	40	{2 500,000 3 350,000	Joint continuation of Iowa Nos. 2 and 3; funnel-shaped cloud observed. <sup>2</sup> Also covers damage by No. 2 in Martin County. See remarks for No. 2. <sup>1</sup> Last reported near Pleasant Prairie shortly after 6 p. m. About 300 buildings at Blue Earth, Faribault County, destroyed or badly damaged. <sup>3</sup> Also covers damage by No. 2 in Blue Earth County but loss in latter county believed small. See remarks for No. <sup>9</sup>
		Martin (E.) and Blue Earth (SW.).		(4)	(4)	(2)	(2)	(2)	2.   Evidence indicates that this tornado existed north of and about the same time as No. 1. Path not continuous. Individual loss incurred by Nos. 1 and 2 not obtained. See note (2)
		Fillmore (C.) Houston (SW.)		1/2 4	110 880	0 0	0	25, 000 5, 000	and remarks for No. 1. Rural property losses. Rural property damaged; some damage to corn.
MISSISSIPPI		Carver (SW.)		10	(7)	0	1	11,000	some damage to corn.  Mostly rural property destroyed; also many grain shocks scattered.
		Prentiss (N.)		25	400	4	12	20, 000	Path not continuous; greatest devestation occurred at
		Yalobusha (S. and E.)		18	400	4	7	10,000	Bonneville.  Greatest amount of damage incurred in vicinity of Coffeeville. Occurred about 80 miles SW. of No. 1.  Vital figures, principally damage, deaths, and injuries occurred when tor-
3. Apr. 5	(4)	Lee (S. and E.) Itawamba (W.)	NE	30	{ 400 (4)	216	700 3	, 000, 000	nado struck Tupelo. Oc- curred about 30 miles S. of and 60 miles WSW. of Nos. 1 and 2, respectively. For ex-
14. Apr. 5	(2)	Itawamba (ext. E.)	NE	(5)	(4)	0	0	(9)	tended discussion see p. 28.  1 Continued into Alabama as  No. 7. 2 Exact time of inception unknown, but  probably only a few minutes previous to 9 p.m.
5. Dec. 6	7:15 a.m	Washington (NW.)	NE	(1)	(1)	0	4	50, 000	when it struck Red Bay, Ala. Disturbance struck business section of Greenville. <sup>16</sup> city blocks long, 2 city blocks wide.
	3 a.m	asper (NE.)	NE	(4)	(4)			0.000	
2. Feb. 26	(1) F	Polk (S.) and Dallas (SW.).	NE		(4)	0	0		Damage chiefly to tourist camp.  Possibly reappearance of No.  1; occurred about 40 miles  NE. of No. 1. 'Time of occurrence shortly after  No. 1. Polk County about  25 miles NE. of Jasper  County.
See footnotes a	it end of table.								

Table 9.—Tornadoes of 1936, arranged by States—Continued

					.goa og				
State, number, and date	Time	County	Direc- tion of ad- vance	Length of path	Width of path	Killed	Injured	Property losses	Remarks
MISSOURI—con. 3. Mar. 23	2:45 p.m	Webster (N.), Laclede, and Camden (E.).	NE- NNE	Miles 60	Yards 50-300	Number 4	Number 25	Dollars 150, 000	Tornado cloud observed first near Marshfield; removed the forty-fourth car (a 20- ton empty "hopper type") from a 78-car freight train at
4. Aug. 28	About 1:15 a.m	Callaway (SE.)	NW	(4)	(4)	0	0	(10)	rest. Exceptionally heavy hail fell in vicinity of and particularly west of origin. Funnel-shaped cloud ob-
5. Sept. 23 MONTANA	About 3 p.m	Barton (NE.)	E	10	100	0	0	(10)	served. Rural property damaged. Funnel-shaped cloud ob- served. Considerable dam- age to rural property.
1. May 5	5:30 p.m	Fallon (C.)	NE	(1 4)	50–100	0	0	200	Funnel-shaped cloud ob- served. Rural property damaged. Length of path
2. June 27		Hill (EC.)	NE	<b>3</b> 10	33	0	0	125	probably short.  1 Origin near Assiniboine. Rural property damaged.  2 Approximate distance in
		Blaine (NW.)	NNE- NE.	2 40	10	0	7	1,000	Hill County traveled.  Tornado traversed mostly barren country. ¹ Time of destruction at Cherry Ridge. Rural property damaged: in addition 14 sheep killed. Disturbance probably passed into Canada. ² Approximate length of path in Blaine County. Average speed of progress roughly about 25
		Cascade (NE.)Chouteau (SW.)			25	0	0	1,500	m. p. h. Occurred in vicinity of Great Falls. Property damage.
NEBRASKA	4.00 p.m	Chodieau (5 W.)	ENE	2	20	0	0	1, 500	Granary demolished.
1. June 29 2. Aug. 20	7 p.m	Nuckolls (N.)  Douglas (N.) and  Washington (S.).	SE	<b>4</b> 5	100 300	0	0	2, 000 10, 000	No details. Path not continuous.
3. Sept. 1	7:35 p.m	Otoe (E.)	SE	1	200	0	3	{ °1, 000 24, 000	Occurred in vincinity of Dunbar.
		Hampden (SC.)			(1)	0	0	(1)	<sup>1</sup> No concrete data available and disturbance in south- central Hampden county included as a doubtful
2. July 9	4:59 p. m	Worcester (EC.)	NE	(2)	(2)	0	18	200, 000	tornado. Occurred in thunderstorm area. Possibly addition-
3. Sept. 8 CONNECTICUT	(4)	Essex (S.)	N	. (4)	(4)	0	18	1,000	al number injured.  Damage to buildings and trees. <sup>1</sup> Possibly additional number injured.
1. Sept. 12 VERMONT	(4)	New Haven (NE.)	(4)	(4)	(4)	0	0	(10)	Doubtful tornado occurrence.
	P. m	Orange (EC.)	N	6	(2)	0	0	{	Funnel-shaped cloud observed, accompanied by hail.
1. May 18	7:30 p. m	Somerset (SW.)	(4)	(8)	(6)	0	0	(10)	Damage confined to 1 farm, barn demolished.
1. Mar. 30	12:30 p. m	Socorto (C.)	N	(4)	60	0	0	200	Only 1 building on edge of
2. May 3	2 p. m	San Miguel (NW.)	S	(4)	200	0	0	10, 000	path affected.  Passed near Sapello. 2 dwellings and 6 other buildings destroyed; accompanied by heavy hail over a large
3. May 31 NEW YORK	2 p. m	Socorro (C.)	N	(4)	60	1	0	500	area. Small tornado. Occurred in vicinity of Socorro.
1. May 19	4:40 p. mat end of table.	Albany (NE.) and Rensselaer (W.).	E	1	(1)	0	0	(10)	Funnel-shaped cloud ob- served. Occurred about 9 miles N. of Albany sta- tion, in vicinity of Cohoes, Unroofed 2 buildings, pro- duced a "waterspout" ef- fect when crossed Hudson River. 1 Width very nar- row, 6-8 yards.

Table 9.—Tornadoes of 1936, arranged by States—Continued

							1		
State, number, and date	Time	County	Direc- tion of ad- vance	Length of path	Width of path	Killed	Injured	Property losses	Remarks
NEW YORK-con.									
2. June 13	(1)	Jefferson (C.)	(4)	Miles (5)	Yards (6)	Number 0	Number 0	Dollars	Small tornado, duration about 1 minute. Late
3. July 25	(1)	Jefferson (W.)	(4)	(5)	(8)	0	2	{ c (11) (12)	afternoon. Produced "waterspout" effect over Guffins Bay. Damage confined to rural
NORTH CAROLINA									districts. 1 Afternoon.
1. Apr. 2	5:57 a. m	Cabarrus (C.)	(1)	(1)	(1)	(1)	(1)	<sup>1</sup> None.	Funnel-shaped cloud not observed, but "heavy" cloud moved from NW. to SE. over Concord, attended by a loud noise. Winds not tornadic, incurred scattered damage over an area 2 by 5 miles; estimated at \$150,000 and
	(1 7:12 p. m	Guilford (EC.)	ENE_	37	350	13	144	2, 000, 000	injured 2 persons; included in table 11. <sup>1</sup> Time of appearance. Tor- nado cut path through Greensboro from western
2. Apr. 2									extremity to eastern out- skirts. <sup>2</sup> Length of de- structive path in county. Inception 65 miles NE.
	18 p. m	Alamance (C.)	ENE.	2 6	100	1	4	10,000	from vicinity of No. 1.  Appeared ½ mile N. of Mebane. Length of de- structive path within
		Orange (WC.)	ENE_	2 1	100	0	0	5, 000	county. <sup>1</sup> Time of appearance 3 miles  N. of Hillsboro. <sup>2</sup> Length of destructive path in
3. Apr. 2	9:15 p. m	Warren (SE.)	ENE.	(1 4)	(1 4)	0	0	(11)	of destructive path in county. Total length of path (not continuous about 38 miles. Average lineal speed about 36 m. p. h. See discussion p. 27. Cooperative observer at Arcola reported a heavy cloud with loud roar passed north of station at 9:15 p. m. No. 3 sighted about 63 miles ENE. from termination of
4. June 28	About 3 p. m	Warren (C.)	(4)	(5)	(6)	0	0	50, 000	No. 2. 2 large warehouses demol- ished and several dwellings
	8:45 p. m	Pasquotank (SE.)	ENE.	5	50	0	0	{ ° 2, 000 6, 000	damaged. Damaged a school and other smaller buildings.
NORTH DAKOTA  1. May 21	About 5 a. m	McLean (NE.) and McHenry (SW.)	(1 4)	(4)	(4)	0	0	5, 000	Rural property damaged.  1 Probable direction of advance NE. Moderate hail fell in both counties near 5 a.m.
OKLAHOMA									
		Tulsa (N.)		5	100	0	18	1, 500	Struck the town of Torley.  Demolished 3 homes; accompanied by heavy rain.
2. May 1 3. May 8	6:45 p. m 4:10 p. m	Caddo (C.)	N	2 1/4	440 100	3 0	11 1	{	Struck the town of Albert; destroyed 4 homes. Rural property damaged. 1 large house built of native
4. May 8	4:10 p. m	McIntosh	NNE.	1 1/3	1 150	1	4	40, 000	stone completely demolished.  Tornado struck the town of Hanna; moving over a path 1 block wide and 4 blocks
5. May 8	5 p. m	Pittsburgh (SW.)	NNE.	1/2	440	0	2	7, 000	long; 15 small homes destroyed, several others partially wrecked. Occurred about 54 miles NNE. from No. 3.  Struck Ashland about 5 p. m.; 12 houses and a church badly damaged. Origin about 33 miles SSW. from No. 2 and 22 miles NNE. of No. 1, possible reappear-
~ .			1	1	1				ance of the latter.

Table 9.—Tornadoes of 1936, arranged by States—Continued

		Tibbli 5. 1077aaoe	8 0) 190 	o, arro	ingea by	States	—Con	tinued	
State, number and date	Time	County	Direction of advance	Length	Width of path	Killed	Injured	Property losses	Remarks
OKLAHOMA-co			_					-	
6. May 8	8 p. m	Sequoyah (SW.)	N	Miles	Yards 100	Number	Number		Struck town of Grove shout
					100	1	12	15, 000	Struck town of Grove about 8 p. m. Several homes destroyed. Length of path not certain. Occurred 48 miles NE. from No. 8; the latter the nearest of the foregoing tornadoes occurring on May 8.
7. May 8	K	Muskogee (SE.)	1	11	100	1	20	21, 000	Struck near Webbers Fall; origin only a few miles SSW. of No. 6.
		Sequoyah (SW.)			100	0	6	(10)	sequoyan County adjacent and east of Muskogee County. Several houses on southern edge of Grove
		Washita (NE.)			1 50	1	0	2, 000	damaged.  1 home destroyed.  Width not certain.
		Kiowa (S.)			75	1	1	{ *8,000 8,000	Several buildings demolished and more than 20 head of livestock killed. Attended by destructive hail. 1 Di- rection of advance not certain. Occurred about
		Comanche (W.)		5	1, 760	0	0	{ ° (10) 47, 000	50 miles SSW. from No. 8. Many buildings destroyed; 100 people left homeless. Hail attended disturbance; occurred about 10 miles E. of No. 9.
				3 20	3 8, 800	3	5	{ c 25, 000 25, 000	<sup>1</sup> A series of 3 tornadoes struck in vicinity of Hast- ing. <sup>2</sup> Direction uncertain. <sup>3</sup> Aggregate width and length affected. Series occurred about 40 miles SE. from No. 10.
14. June 5	10 p. m	Jefferson (ext. NW.)	SE	20	(1 7)	2	8	( e (11) 100, 000	Probable tornado: 45 homes destroyed, mostly in rural area NW. of Waurika. In latter city a school and hospital partly demolshed. ¹Destructive path 2 to 3 miles wide. Origin about 5 miles W. of the school of the
		Pushmataha (SW.)	E	20	880	0	0	400 1,000	Nos. 11, 12, and 13. Small tornado; occurred in southeastern part of the State, far removed torna-
	8:30 p. m			1 1/2	1 100	0	0	500	Small tornado. 1 Value not certain. Occurred in south-
		Tillman (SE.)	1	1 1/2	880	0	0 {	° 15, 000 8, 000	western part of the State. Occurred about 15 miles NW. from No. 16. Length not
		Creek (SE.)		6	2, 640	0	0 {	c 1,000 20,000	certain. Direction of advance not definitely known. Attend-
	6:45 p. m 4:30 p. m	McClain (SE.)	SE	3	200	1	0 {	2 500 1, 500	ed by heavy hail. Small tornado; struck the town of Rosedale; occurred about 80 miles SW. of No.
		Kiowa (S.)  McCurtain (S.)	NE	1	200	0	0		Small tornado; attended by heavy hail.
PENNSYLVANIA		TV 1		1	880	0	6 {	2 500 1, 500	Struck near Golden; rural property damaged.
		· · · · · · · · · · · · · · · · · · ·	(1)	(1)	(1)	0	0	(9)	2 funnel-shaped clouds ob- served aloft over Claysville. Wind, not tornadic, incur- red damage of \$510,000 in Washington County and adjoining Fayette County
1. Apr. 2	8:30 a. m	Colleton (W.)	E	1	80	1	0	1,000	afternoon of this date—. damage included in table 11
		Anderson (C.)		15 40	00-500	1			Struck near the town of Lodge, rural property destroyed.  Destroyed about 50 homes in
	3-4 p. m	Turner (E.)	E	2 10	(4)	0	0		Anderson and vicinity.  4 distinct funnel-shaped
2. June 28	5:30-6 p. m	Davison (NE.), San- born (SE.), and	NE	30	(6)	0	0		2 Path not continuous; tor- nado funnels dipped to earth several times des- troying rural property.
See footnotes a	at end of table	born (SE.), and Miner (S. and C.).							al homes, windmills, eleva- tor, and some farm machin- ery wrecked.
	table.								

Table 9.—Tornadoes of 1936, arranged by States—Continued

State, number, and date	Time	County	Direction of advance	Length of path		Killed	Injured	Property losses	Remarks
S. DAK.—con. 3. July 12 4. Aug. 18 TENNESSEE	4:30 p. m. 10:30-11 p. m.	Hyde (EC.) Potter (S.)	NE	Miles 3 (4)	Yards 70 110	Number 0 0	Number 0 0	Dollars 300 20,000	Rural property damaged. Rural property losses.
IBMMESSEE	(7:45 p. m	, , , , , , , , , , , , , , , , , , , ,	1	(1)	300	1	4	2, 000	Inception in SE. quarter of
1. Apr. 5		Wayne (N.)			400	5	27	100,000	Hardin County.  Passed through norther half of Wayne County.
	11	Lewis (W.)			200	0	4	50,000	Terminated north of Hohen wald (west portion).
2. Apr. 5	8:30 p. m			<sup>2</sup> 35	100-400	5	20	50, 000	Path of No. 1 not continuou but the time element, direction, and geographic ar rangement of areas affecte all point to 1 tornado and not several. 2 Total lengti of path about 35 miles; lin eal speed about 47 m. p. h Inception about 30 miles eas
3. July 3	1 p. m	McMinn (SW.)	NE	(5)	80	0	1	{ 200	from termination of No. 1
4. July 3	2 p. m		NE	13	60	0	5	8, 000 200 6, 500	{   Approximate value.
		Gregg		(1 4)	(1 4)	0	0	{°200, 000 {1,000,000	Probable tornado—occurred in conjunction with a wide spread windstorm over NE. portion of State Heavy property damage due to wrecking of oil well are supported to the state of the state o
2. Apr. 15 3. Apr. 27	7:30 p. m 2 a. m	Midland (N.) Milam (SW.)	SE	(4) (4)	3, 960	0 2	0 11	25, 000 (13)	derricks.  Demolished several frai
4. May 8	5 p. m	Fannin (NE.)	NE	12	1, 320	1	5	15, 000	houses in town of Tracy
	(1 4)			(5)	(6)	0	0	(11)	Occurred in afternoon, not known whether preceded or followed No. 5. Lo cality more than 100 miles SSW. of No. 4.
6. May 9 7. May 9	1 a. m	Smith (C.) Lampasas (S.)	NE	12 3	660 440	0	3 0	8, 000 (11)	Struck in vicinity of Tyler. Occurred close to 200 mile
8. May 9	(1 4)	Morris (N.)		(5)	(6)	0	2	5, 000	SW. from No. 6.  Details lacking. 1 Occurred in morning, time order relative to Nos. 6 and not known. Origin about
9. June 6	5:20 p. m	Wichita (SE.)	SE	4	440	0	2	50, 000	60 miles NNE. of No. 7. Damage incurred at Wichita
10. Aug. 23	4 p. m	Hunt (C.)	SE	(4)	880	0	0	(13)	and vicinity.  Destroyed I barn and damaged other structures as
11. Dec. 6	3:50 a. m(1 4)	Harrison (C.) Falls (C.)	SE	(4) 2½4	660 (4)	0	4 0	8, 000 2, 000	Greenville.  Rural property damage.  Occurred in early morning, presumably after No. 11; location about 180 miles SW. of No. 11.
1. Mar. 17 WASHINGTON	5:30 p. m	Pittsylvania	N	30	400-900	0	0	45, 000	Damage confined mostly to buildings.
1. Sept. 3 wisconsin	5:50 p. m	Walla Walla (SE.)	NE	(5)	(8)	0	0	None	Traveled over stubble field funnel-shaped cloud observed.
1. May 16	Midnight	Trempealeau (N.)	NE	6	275	0	0	30, 000	Mostly rural property damage; 6 barns destroyed and
2. July 11	4:30 p. m	Lincoln (N.)	E	1	1, 320	0	0	5, 000	6 others damaged. Tornado character somewhat doubtful. Property dam-
3. Aug. 22	12:20 a. m	Washington (NE.)	NE	3	140	0	0	300	aged. Rural property damaged.
1;}July 30*	Afternoon	(1)	(1)	(1)	(1)	0	0	(11)	2 towering waterspouts ob- served over Lake Eric, migrated inland in the vicinity of Conneaut, On- tario.

\*Not included in tables 6, 7, or 8.

<sup>3</sup> See adjoining remarks.

<sup>6</sup> Narrow.

<sup>8</sup> None reported.

<sup>12</sup> Few hundred.

Obamage to crops.

1 See adjoining remarks.
2 See adjoining remarks.
5 Short.

Wide.
3 Several injured.
10 Damage occurred; no estimate secured.
13 Several hundred.
14 Several thousand.

### HAIL, 1936

Information about damaging hail has once more been collected, but special efforts were exerted to establish losses for the crop season, April to September 1936, inclusive, also to separate crop losses from realty property losses. The regular and cooperative stations have furnished practically all this information which was first assembled by the officials in charge at the various section centers. The aggregate loss for the year 1936 amounted to \$11,700,038; of this amount more than 9 million dollars was damage to crops. The total estimated loss is probably too low for in many cases the damage was described as "severe," "considerable," or amounting to "many thousands of dollars." Hail occurred somewhere in the United States every month of the year and losses were incurred in all months, except November. It may be of interest to note here that heavy hail occurred at several points in Alaska; namely, Cordova, Homer, Allakaket, Tanana, and Aniak during May, June, August, and September. No losses to property or crops were reported. There are on record for the year 1936 several instances when hail inflicted considerable injury to livestock and one case of human injury in Alabama in the month of April.

Losses incurred by hailstorms in the United States prior to the crop season (March to September, inclusive) were negligible, except for one instance in Texas during the month of March. During the afternoon of March 24, a severe hailstorm accompanied by wind incurred damage amounting to \$250,000 to buildings in Smith County. On the same afternoon in Gregg County, Texas, hail damaged crops to the extent of \$5,000.

In the post-crop season, the occurrence of hailstorms were very few in number, though one extremely severe storm took place in Carter County, Okla., on the afternoon of October 6. The storm in question approached from the northwest and covered a path about 3 miles wide and 8 miles long. Many of the stones were unusually large measuring 3 to 4 inches in diameter. They were irregular in shape, some being about 5 inches long and 2 inches thick, possessing rather rough projecting points and sharp edges. They fell with such force and in such quantity as to prove very destructive to property. The roofs of practically all buildings in the main path of the storm were damaged or destroyed. The loss to crops was only slight, but the total damage to other property was estimated at \$300,000.

### LOSSES DURING THE CROP SEASON

During the crop season (6 months, April-September) the frequency of damaging hailstorms was quite high and damage was correspondingly greater, due in part to the condition of vegetation and in part to the fact that in the summer months the distribution of atmospheric elements is conducive for the generation of severe thunderstorms essentially necessary to the formation of destructive hail. However, due to the prevalence of severe drought conditions in the Midwestern States, damage to crops was considerably minimized, especially so, in the northern Plains States; also when there is little rainfall, there is little hail as a rule. The estimated property and crop losses for the season (April-September) amounted to \$10,449,268. July with damage estimated at \$3,603,766 was the month with the greatest loss, June was second with \$3,541,112 and August with \$2,067,209 was third. Figures for the other 3 months are: May, \$960,783; September, \$162,098; and April, \$114,300.

Damaging hail was recorded in all States, except California, Nevada, and Delaware and in Rhode Island in the New England district. Other States in the latter district experienced moderate to heavy hail at some time during the summer months, the extent of damage, if any occurred, was not ascertained owing to the lack of sufficient data. No hail of damaging consequence was reported in Puerto Rico, Hawaii, or the Virgin Islands and only slight damage was noted in the

District of Columbia.

From the standpoint of State comparison, Iowa suffered the greatest loss during the season amounting to \$2,997,540, of this amount \$2,898,290 was crop damage being about three times as great as the corresponding 1935 figure. The largest county damage in Iowa was \$351,291 in Clay County located in the extreme northwest portion and the greatest township damage was \$164,595 in Garfield township, Clay County. Ten counties in Iowa reported no damage and the actual area visited by damaging hail was about 25 percent of the total area of the State. The second greatest State loss \$1,299,000 occurred in North Carolina and Oklahoma ranked third (first in 1935) with damage amounting to \$1,349,750. The State of Montana which ranked third in 1935 with losses amounting to \$1,041,000 experienced during the 1936 season the lowest hail loss of record totalling a little more than \$52,750. The most severe singular hailstorm in the crop season (also for the year) occurred on July 23 in Hendricks and Morgan Counties, Ind. The total estimated damage was set at \$350,000 which represents principally crop losses. The area effected approximated 40 square miles. This falls far short of the most severe storm for the year 1935 when on April 17 Kay County, Okla., sustained a loss amounting to \$1,255,000.

Table 10 shows separate losses for property and crops by sections during the months of 1936 also similar aggregate totals for the 6 months, April to September inclusive, and for the total 6-months period preceding and following the crop season.

Table 10.—Losses from hailstorms during 1936

	March April					1								
		anuary	100	ruary	1415	псп	A	.prii		May	J1	une		July
State or section	Pro ert dan ag	dam-	Property damage	Crop dam- age	Property damage	Crop dam- age	Property damage	Crop dam- age	Property damage	Crop dam- age	Property damage	Crop damage	Prop- erty dam- age	Crop damage
Alabama Arizona Arkansas		300	(1)		\$1,000	\$500 (1)	\$3,000	(1)		\$6,000		\$34, 500	\$1,300	
Colorado District of Columbia Florida Georgia							1, 000		\$200		(4) 625	5 500		30, 000 (4)
Idaho Illinois Indiana					(1)		78	2	30,700	400	(3) 5, 300 100	(4) 50, 300	8,600	100 25, 000 21, 800
Iowa_ Kansas_ Kentucky_ Louisiana_					`155 	200	1 5, 000	(1)	230, 400	131, 000 10 28, 983 35, 000	<sup>(7)</sup> <sup>2</sup> 300 150, 000	(7) 10 57, 966 217, 500 1, 000	2 250	375, 000 1, 246, 265 2 5, 500 1, 000
Maryland Michigan Minnesota Mississippi	-				(1) (1)	200		1,000	10, 000	50, 000 200 (³)	(7)	4, 500 9, 000 5 100, 000	10, 000 1, 000 (3)	125, 000 21, 200 8 100, 000
Missouri Montana Nebraska New England					(1)	(7)	(3) (1) (3) 20, 000	(3)	(1)	112, 500	<sup>5</sup> 12, 500 (1) 68, 000	(1) (4) (1) 293, 000	(3) 2 1, 500 1, 000	(3) 8 51, 000 3, 000
New Jersey New Mexico New York									( <sup>7</sup> )	102, 000	(3) (3)	11, 000 8 150, 000	(7) (1) (3)	(7) (1) 2,000
North Carolina			\$15						3, 200		10, 000	202, 500 2, 021 1, 022, 250	54, 000 (7) 300	1, 032, 500 20, 751
Oregon Pennsylvnaia South Carolina South Dakota		\$100						200		400	101,000	120, 000 5, 000	70, 000 2, 000	120, 000 100 40, 000 120, 000
Tennessee Texas Utah Virginia					250, 000	5, 000			25, 000		(3)	(3) 570, 000	(3)	50, 000
Washington West Virginia Wisconsin							(1)	(1)	55, 400	300	2, 500	58, 500 (1) (1)	3, 500	13, 500 (1) 500 27, 800
Wyoming Total	3	00 100	15		251, 655	5, 700	106, 575	7, 725	406, 500	1,500		3, 250		3, 436, 616
State or section	Aı	ugust	Sep	tember		ctober	N	Vovemb	er I	December	A	op season prSept., nclusive	IV.	iod: Jan lar. and etDec., aclusive
	Prop- erty dam- age	Crop damage	Property damage	Crop damag	Pro ert; dan age	dar	n- da	m- da	m. da	op- ty dam age	dam	Cro		dam-
Alabama Arizona Arkansas Colorado District of Columbia	\$100 400	\$75, 200	\$150	\$5	50						1,		350	300 \$500
Florida Georgia Idaho Illinois	20, 600	40, 000									50,	625 5, 3 375 115, 3	300 100 325	
Indiana Iowa Kansas		101,449,145	<sup>2</sup> 2, 400	10 115, 93 5, 00					(1	)	156,	250 2, 898, 2 250 258, 0	000 290 000	155
Louisiana Maryland Michigan 81	2, 000 2, 000 0, 000	25, 000 8, 900 5 110, 000	10,000	6, 70	0						23, 0 1, 1 12, 0 11, 0 20, 0	500 1, 0 000 204, 1 000 46, 0	500	200
Mississippi Missouri Montana Nebraska New England	250	( <sup>7</sup> ) 8, 000	(1) (6)	(3)	0						12, 8 1, 7 339, 0	500 112, 8 750 51, 6 000 306, 8	000	
New Jersey New Mexico New York	(1)	(1)	(3)	10, 00	0							123, ( 172, ( 000 1, 235, (	000	

Table 10.—Losses from hailstorms during 1936—Continued

State or section	A	ugust	Sep	tember	Octo	ober	Nove	ember	Dece	mber	Apr.	season -Sept., usive	Oct	: Jan. . and -Dec. isive
	Property damage	Crop damage	Property damage	Crop damage	Property damage	Crop dam- age	Property damage	Crop dam- age	Property damage	Crop dam- age	Prop- erty dam- age	Crop damage	Property damage	Crop dam- age
North Dakota Ohio Oklahoma Oregon Pennsylvania					\$300,000							\$24, 203 1, 147, 250 700	\$300, 015	\$100
South Dakota Tennessee Texas	\$5,000										171, 000 2, 000 5, 000	125, 000 50, 000		
Virginia_ Washington	10,000	4, 000 165, 000							(7)		25, 000 12, 500	4,000		5, 000
West Virginia Wisconsin Wyoming	38, 000	8 25, 000									96, 900 600	62, 800		
Total	135, 800	1, 931, 409	\$12,550	149, 548	300, 000						1, 401, 900	9, 047, 368	551, 970	5,800

Minor losses reported.
 Losses incurred in additon to amount stated; no estimate secured.
 Some losses incurred; no estimate obtained.
 Losses incurred amounted to several thousand dollars; no exact estimate obtained.
 Losses occurred amounting to several thousand dollars, in addition to the amount stated, but an exact estimate not available.
 Damages reported as amounting to several hundred dollars.
 Damages reported as considerable, but monetary value of losses not obtained.
 Losses incurred, in addition to amount stated, reported as considerable, but no estimate secured.
 Hall occurred ranging from moderate to heavy in all New England States, except Rhode Island, in the months of April-September, inclusive; however, not sufficient information available to determine damage, if any occurred.
 Iowa's total hail-crop-losses (State assessor's statistics) for the 1936 crop season amounted to \$2,898,290. This sum was apportioned as follows: April, none; May, I percent; June, 2; July, 43; August, 50; and September 4 percent, based on intensity and frequency figures furnished by Iowa Weather Bureau section director.

### LOSSES FROM WINDSTORMS, 1936

For the twenty-first consecutive year statistics have been collected, chiefly through field service officials of the Bureau, of the losses of property and life resulting from all classes of severe winds, except those that were considered to have been tornadoes. Special efforts were put forth to break down windstorm damage into two classes, first, damage to property and second, damage to crops. Table 11 shows the results by months, seasons, and sections.

Table 11.—Losses from windstorms, other than tornadoes, by months, seasons, and sections, 1936 [In dollars]

			1		1		1				1			
	Janu	lary	Febr	uary	Ma	reh	Ap	oril	M	lay	June		July	,
State or section	Property damage	C-op dam- age	Prop- erty dam- age	Crop dam- age	Property damage	Crop dam- age	Property damage	Crop dam- age	Property damage	Crop dam- age	Prop- erty damage	Crop dam- age	Prop- erty damage	Crop damage
AlabamaAlaska	1 9, 975				2, 500		9, 500				103, 500		300, 000	3, 000, 000
Arizona Arkansas California Colorado	1 770		535 000		(2) 5, 600 10, 000	10.000			5, 000		200 1 1, 000 (4)		18, 200 11, 900	8, 800 5, 000
District of Columbia Florida Georgia	(4)		5, 080	(4)	1, 200 50, 000 (4)	(4)	5, 000	(4)	(5) 100 (5)		(6)	(6) (7)	1 500 136, 500	(4) 14, 000
Hawaii Idaho Illi ois		(1)		(1)	8, 900		8, 950		39, 700		1, 750	30, 000	500	(4)
Indiana Iowa Kansas					( <sup>7</sup> ) 15, 850		11, 750		25, 000 12, 150 2, 200		2, 600 5, 500 1 81, 035 1 34, 350	1 41, 050		(2) 1 80, 100
Kentucky Louisiana Maryland-Delaware							31, 000 1 1, 820		2, 200		12, 300 (4) 5, 000	22, 000	1 1, 450 20, 600 750	1,000 1,000 100
Mississippi					( <sup>7</sup> )		9 10, 000		(2)		80, 000 1 40, 000	(4)	35, 000 25, 000 76, 500 35, 200	(4)
Missouri Montana Nebraska New England						(5)	(7)		27, 500 500 250, 000		5, 000	(5)	(4) 9 5, 200 3, 000	5, 000 (4)
New Jersey							(4)							

Table 11.—Losses from windstorms, other than tornadoes, by months, seasons, and sections, 1936—Continued [In dollars]

	Janu	lary	Febr	uary	Ma	rch	Ap	ril	M	ay	Ju	ne	Ju	ıly
State or section	Property damage	Crop dam- age	Property damage	Crop dam- age	Property damage	Crop dam- age	Prop- erty dam- age	Crop dam- age	Property damage	Crop dam- age	Prop- erty damage	Crop dam- age	Property damage	Crop damage
lew Mexico lew York lorth Carolina lorth Dakota hio klahoma regon ennsylvania outh Carolina outh Dakota ennessee	2, 000 (4) 200, 000		25, 750		(7) (4) 100, 000 (10) 404, 500 (1) 75, 500		(7) 150,000 9,250 (4) 47,500		21. 000 (4) 50 (5) 1, 500 6, 800	4, 200	(1) 2,000 9 27,500 410,500 19,000 5,200 62,000	1, 000 52, 000 3, 100 60, 000	(1) 9,000 35,000 9 35,000 17,500 550,000 2,100 9 2,650 32,500	(10) 2, 000 9 1, 000 10, 000
exas tah irginia ashington isconsin yoming Total	14, 000 250, 000 8, 000  484, 745		568, 330		30, 000 		8 38, 000 750 18, 000		20,000		25, 000 25, 000 2, 500 1, 589, 935	(3) 1,000 1,000	32, 300 1, 033, 800 18, 600 25, 000  2, 987, 450	2, 00 7, 00 5, 00

	Au	igust	Sept	ember	Oct	tober	Nove	ember	Dec	ember	Apr.	season, -Sept., lusive	An	nual		mber f—
State or section		1		1	-	1					-				-	
	Property damage	Crop dam- age	Property damage	Crop dam- dam-	Property damage	Crop dam- age		Crop dam- age	Property damage	Crop dam- age	Property damage	Crop damage	Property damage	Crop damage	Deaths	Inju
Alabama	1 1, 200															
Alaska	1, 200	/	(6) 750				00 000		1,500	)	414, 200	3, 000, 000		3, 000, 000		
Arizona	16, 400	3,000	75/	50			28, 800						28, 800		11 3	
Arkansas	20, 100	0,000	200	)							35, 550			11,850		
California				/			(4)		(4)	/45	18, 100	5, 000		5, 000		
Colorado	(5)		1 17	5			(-)		(4)	(4)	075		545, 000	10,000	~	
Dist. of Col											675 100		7, 725		2	
Florida											141, 500	14, 000	191, 500	14 000		
Georgia		(5)									110,000		110, 000	14, 000 30, 000		3
Hawaii											110,000	30,000	110,000	30, 000	6	12 1.
Idaho											3, 750	750	3, 750	750		
Illinois			(7)						10, 100		128, 750	62, 300	147, 750	62, 300		
Indiana	1600,000				(4)						715, 500	,	715, 500	02, 000	1	
Iowa Kansas	1 300, 800	1237, 960			}				8 1,000		936, 685	359, 610	953, 535	359, 610	î	
Kausas Kentucky	9 10, 000 2, 700		4, 500						10,000		53,000	22, 500	. 63,000	22, 500		
Louisiana	2, 100	1,000									66, 600	2,000	66, 600	2,000	11 5	
MdDel	31 500		500 000	83,000							2, 570	100	2, 570	100		-
Michigan	(10)		300, 000	00,000	1, 000						571, 500	83, 000	571, 500	83, 000	11 8	
Minnesota	1200,000	(5)	1 90, 000	(5)	(5)						105 000		106,000		11 3	
Mississippi	8, 500		3, 000		(0)		(5)				416, 500		416, 500			10
Missouri	1 2, 000				(7)		75, 300		1 500		46, 700	5, 000	46, 700	5, 000		
Montana	200						10, 500		(7)		40, 000 5, 900		115, 800 5, 900		2	1.
Nebraska	3,000		9,000						(')		270, 000		270, 000			
New England	355, 000		500,000		(1)						855, 000		855, 000			18
New Jersey	(4)										20, 000		20, 000		2	(12)
New Mexico											20, 000		20, 000		4	(12)
New York	9 130, 000	(3)	(1)		(4)	(3)	(4)				130,000		155, 750		11 4	37
North Carolina			60,000	30,000							221, 000	33,000	323, 000	33, 000	1	2
North Dakota											56, 000		56, 000			^
OhioOklahoma	8 3, 000 2, 500		75 000		200, 000						65, 500		268, 000		25	(12)
Oregon	1, 000	500	75, 000	(7)					10,000	375, 000	505, 550	53, 000	515, 550	428, 000	7	(12) 13 17
Pennsylvania	30, 000	500									1,000	3,600	1,000	3, 600		
South Carolina	1, 000				150					~	599, 000	70, 000	599, 000	70,000	3	18
outh Dakota	(4)		(6)		(1)						13, 850		618, 500			
'ennessee					13, 500				(4)		14, 650	4, 200	14, 650	4, 200		
Pexas	20, 300			******	20, 000	~			50, 000		142,000	2,000	231,000	0.000	2	12
Ttah					500,000				00, 000		1,816,400	2, 000	1, 896, 400	2,000	2	13 25
rirginia		40,000	850,000	775,000						~	879, 350	823, 000	500, 000 893, 350	823, 000	~	
Vashington											010, 000	323, 000	250, 000	828, 000	11 34	4
Visconsin	117, 300								10, 000		205, 300	6,000	225, 000	6,000	11 4	7
Vyoming									-0,000		2, 500	0, 000	2, 500	0,000	4	- 6
Total	1 964 750	282 960	2 313 725	888 550	714 650		104, 100		(12, 100	275 000		4 500 010	12,280,355			
10001	1,001,100	202, 000	2,010,620	000, 000											121	260

<sup>1</sup> Additional losses occurred; no estimate secured.
2 Losses occurred; no estimate obtained.
3 Heavy crop losses reported; no monetary estimated obtained.
4 Considerable damage occurred; no estimate received.
5 Some damage reported; no estimate received.
6 Losses incurred of several thousand dollars.
7 Minor damage reported.
8 Additional damage of several thousand incurred; no accurate estimate received.
9 Considerable losses incurred above stated amount, no estimate obtained.
10 Damage incurred amounted to several thousand dollars; no definite monetary estimate secured.
11 Death by drowning.
12 Several injuries reported; number not definitely known.
13 Several injuries occurred in addition to number stated.

Deaths and fire losses caused by lightning, also havoc and loss of life caused by floods of streams are omitted from table 11, even though high winds are a feature of the electrical storm that caused the downpour. When hail or beating rain, or both, accompanied these strong winds, or in the colder months sleet, glaze, or heavy snow aided in causing damage, an effort is made to estimate what share of the total loss was due to winds.

The number of deaths attributed to windstorms other than tornadoes in 1936 was 121, as compared with 461 in 1935. The number injured was somewhat in excess of 266, less than one-half the corresponding 1935 figure. The total losses, property and crops, caused by these storms in 1936 was \$17,256,265, which is only a few thousand dollars less than the figure for the preceding year. Four States, namely, Alabama, Iowa, Texas, and Virginia reported losses in excess of a million dollars for the year, and 21 other States reported losses amounting to \$100,000 or more. Table 12 shows the deaths and property losses (crops included) caused by windstorms other than tornadoes since 1916.

Table 12.—Deaths and property losses caused by windstorms, other than tornadoes, 1916-36

Year	Number of lives lost	Property and crop damage	Year	Number of lives lost	Property and crop damage
1916 1917 1918 1919 1920 1921 1922 1922 1923 1924 1925 1926 1927 1928	65 25 79 344 42 65 133 68 78 88 357 64 1,947	\$11, 712, 125 1, 400, 550 7, 602, 200 28, 170, 760 4, 735, 400 13, 174, 650 5, 055, 800 5, 261, 800 13, 545, 750 11, 612, 380 93, 610, 250 6, 783, 160 88, 836, 000	1929	46 49 17 306 156 109 461 121 4,620	20, 334, 600 5, 706, 000 7, 773, 000 42, 657, 360 65, 604, 100 19, 497, 173 17, 191, 000 17, 256, 265 487, 520, 323

#### SUNSHINE, 1936

Table 13 gives for 164 stations the monthly amounts of sunshine and percentage of the possible, as derived from the automatic records made by an instrument designated the "thermometric recorder," illustrated in preceding volumes of this series.

This instrument does not record satisfactorily the duration of sunshine for about 1 hour after sunrise and for about 1 hour before sunset, and on this account it has been considered necessary to apply to the record for these hours what has been designated a "twilight correction." The amount of this correction is found by noting the comparative clearness of the sky during the time that elapses between the hour of sunrise and the moment the instrument begins to record and between the time the instrument ceases to act and the hour of sunset.

The average cloudiness of the whole sky is determined by numerous personal observations at all stations during the daytime, and is given in the column "Daylight" under "Cloudiness" in the tables of Climatology, pages 63 to 155.

44373-38-4

Table 13.—Monthly amounts and percentage of sunshine, 1936

	Jan	uary	Febr	uary	Ma	irch	AI	oril	М	ау	Jui	ne
Stations	Hours	Per- cent- age of pos- sible	Hours	Percentage of possible	Hours	Per- cent- age of pos- sible	Hours	Per- cent- age cf pos- sible	Hours	Per- cent- age of pos- sible	Hours	Per- cent- age of pos- sible
Albany, N. Y. Albuquerque, N. Mex. Alpena, Mich. Amarillo, Tex. Asheville, N. C.	132	45	188	61	182	49	187	46	311	68	302	66
	227	72	202	64	299	80	307	78	299	69	358	82
	83	29	170	56	185	50	172	42	298	65	327	70
	188	60	206	65	290	78	275	70	249	57	379	87
	174	56	182	58	182	49	246	63	357	82	331	76
Atlanta, Ga	172	54	135	42	225	61	211	54	358	83	343	80
	144	47	142	45	184	50	200	50	351	79	227	51
	188	59	174	54	270	73	261	67	367	85	351	82
	207	64	138	43	243	65	266	69	207	49	311	74
	92	32	95	31	239	65	277	68	344	75	325	70
Baltimore, Md	171	56	169	54	187	50	219	55	369	83	279	63
	65	22	102	33	127	34	120	30	242	54	219	48
	184	58	177	55	260	70	236	60	346	80	360	84
	111	40	192	64	195	53	231	57	338	72	319	67
	129	43	166	54	200	54	215	54	323	72	227	50
Boise, Idaho	88	30	105	34	246	66	322	80	361	79	348	75
	175	59	167	54	204	55	192	48	320	71	289	64
	146	44	108	33	185	50	232	60	239	57	342	83
	82	29	139	45	157	42	134	33	327	72	357	78
	110	38	152	50	172	46	146	36	281	61	318	69
Canton, N. Y Cape Henry, Va Charles City, Iowa Charleston, S. C Charlotte, N. C	100	35	173	57	164	44	132	32	258	56	280	60
	144	47	132	42	175	47	244	62	360	82	290	66
	146	50	156	51	178	48	227	56	290	64	309	67
	190	60	184	58	252	68	290	74	357	83	342	80
	170	54	189	59	230	62	253	64	401	92	319	74
Chattanooga, Tenn	134	43	155	49	227	61	253	64	386	89	368	85
Cheyenne, Wyo	232	78	244	79	241	65	305	76	359	80	348	77
Chicago University, Ill	144	49	168	55	232	63	223	56	334	74	333	73
Cincinnati, Ohio	123	41	160	51	219	59	203	51	373	84	371	83
Cleveland, Ohio	69	23	132	43	171	46	149	37	346	77	311	68
Columbia, Mo	143	47	179	57	241	65	248	62	328	74	347	78
	89	29	166	53	174	47	172	43	323	73	345	77
	188	62	203	65	295	79	310	78	339	76	405	90
	200	63	185	58	290	78	299	77	281	65	377	88
	131	44	143	46	216	58	245	61	322	71	329	72
Del Rio, Tex	239	73	178	55	216	58	287	74	260	62	290	69
	170	56	193	62	254	69	265	66	257	58	282	63
	132	45	161	52	262	71	287	72	318	70	360	79
	53	18	142	46	204	55	179	45	325	72	325	71
	164	60	191	64	186	50	291	71	379	80	306	64
Dodge City, Kans	210	69	223	71	318	86	308	78	291	66	396	89
	122	41	122	40	196	53	251	63	333	74	351	77
	165	59	225	75	167	45	245	60	286	61	328	69
	122	43	188	62	157	42	160	36	237	52	263	56
	91	30	139	44	146	39	177	45	316	71	294	66
El Paso, Tex	242	76	254	79	280	75	330	85	339	79	388	91
Erie, Pa	55	19	143	47	162	44	160	40	313	69	296	65
Escanaba, Mich	87	31	168	56	175	47	185	45	282	61	289	61
Eureka, Calif	87	29	123	40	232	63	172	43	278	62	240	53
Evansville, Ind	156	51	179	57	264	71	256	65	405	92	399	90
Fairbanks, Alaska	77	47	150	61	157	43	352	77	323	55	354	55
	168	54	198	62	267	72	281	72	352	81	399	92
	102	34	148	48	241	65	184	46	347	77	354	78
	213	67	190	59	298	94	285	73	212	49	365	85
	169	55	169	54	308	83	336	85	411	94	388	88

Table 13.—Monthly amounts and percentage of sunshine, 1936—Continued

	Ju	ly	Aug	gust	Septe	mber	Oct	ober	Nove	mber	Dece	mber	Annı	ual
Stations	Hours	Per- cent- age of pos- sible	Hours	Per- cent- age of pos- sible	Hours	Per- cent- age of pos- sible	Hours	Per- cent- age of pos- sible	Hours	Per- cent- age of pos- sible	Hours	Per- cent- age of pos- sible	Hours	Per- cent- age of pos- sible
Albany, N. Y. Albuquerque, N. Mex. Alpena, Mich. Amarillo, Tex. Asheville, N. C.	325	80 74 86 86 86	290 305 235 370 268	67 73 54 89 64	220 244 176 270 209	59 66 47 73 56	173 301 150 244 153	51 86 44 70 44	94 285 77 258 159	32 92 27 83 52	103 241 70 200 109	37 79 25 66 36	2, 556 3, 394 2, 350 3, 308 2, 639	55 76 50 74 58
Atlanta, Ga	271	62	283	68	214	58	196	56	185	59	110	36	2, 702	59
	253	56	272	64	225	60	211	61	181	60	113	39	2, 503	55
	306	70	320	77	273	73	243	69	204	65	123	39	3, 079	68
	288	67	314	77	218	59	209	59	159	50	168	53	2, 727	61
	413	87	380	87	324	86	292	86	209	73	75	28	3, 066	66
Baltimore, Md_Binghamton, N. Y_Birmingham, Ala_Bismarck, N. Dak_Block Island, R. I	309	68	284	67	223	60	226	65	176	58	149	51	2, 761	61
	278	60	253	59	202	54	148	43	76	26	74	26	1, 908	41
	269	61	298	72	247	66	226	64	170	55	145	47	2, 918	64
	390	81	245	56	244	65	221	66	144	51	125	47	2, 754	60
	306	67	268	63	192	51	192	56	133	45	115	40	2, 466	54
Boise, Idaho	390	83	368	85	324	86	288	84	241	83	94	34	3, 175	68
	369	80	254	59	212	57	198	58	148	50	115	40	2, 644	58
	271	64	259	64	216	59	206	58	107	33	175	54	2, 486	55
	400	86	288	67	236	63	172	50	103	35	126	45	2, 524	54
	310	66	256	59	230	61	164	48	62	21	86	31	2, 285	49
Canton, N. Y. Cape Henry, Va. Charles City, Iowa. Charleston, S. C. Charlotte, N. C.	310	66	226	52	215	57	167	49	91	32	105	38	2, 221	48
	223	50	296	70	243	65	224	64	188	61	112	37	2, 629	58
	394	85	304	71	240	64	194	57	171	59	111	40	2, 722	59
	348	80	290	70	277	75	214	61	198	63	136	44	3, 078	68
	299	68	305	73	256	69	208	59	209	67	100	33	2, 937	64
Chattanooga, Tenn Cheyenne, Wyo Chicago University, Ill Cincinnati, Ohio Cleveland, Ohio	298	68	279	67	226	61	190	54	161	52	107	35	2, 786	61
	349	76	299	70	298	80	188	54	236	79	187	65	3, 286	73
	396	86	315	74	236	63	199	58	178	60	153	54	2, 913	64
	348	77	316	75	267	71	173	50	174	58	145	49	2, 872	62
	393	85	279	65	234	62	175	51	96	32	124	44	2, 479	53
Columbia, Mo	385	85	295	70	196	52	194	56	217	72	142	48	2, 915	64
	333	73	276	65	248	66	165	48	130	44	130	45	2, 552	55
	434	95	367	86	256	69	249	72	249	83	189	65	3, 484	77
	355	81	375	91	232	62	204	58	181	58	163	52	3, 142	69
	397	86	346	81	213	57	192	56	165	56	139	49	2, 836	61
Del Rio, Tex Denver, Colo Des Moines, Iowa Detroit, Mich Devils Lake, N. Dak	284	67	323	79	147	40	225	63	108	34	172	54	2, 729	61
	330	72	293	69	293	78	222	64	230	77	198	68	2, 988	67
	435	94	319	74	231	62	212	62	193	65	135	48	3, 045	66
	389	84	282	66	223	60	160	47	125	42	118	41	2, 525	54
	422	87	328	74	261	69	218	65	151	54	150	57	3, 048	66
Dodge City, Kans	402	89	362	86	222	59	252	73	270	89	192	65	3, 445	77
	418	91	365	85	243	65	187	54	158	54	117	41	2, 863	62
	409	85	233	53	216	57	141	41	131	47	81	30	2, 626	57
	270	57	241	55	168	45	156	46	74	26	91	33	2, 127	46
	274	61	266	63	224	60	180	52	139	46	142	48	2, 389	52
El Paso, TexErie, PaEscanaba, MichEureka, CalifEvansville, Ind	335	77	313	76	264	71	264	75	212	67	239	76	3, 461	77
	389	84	277	65	205	55	140	41	65	22	86	30	2, 292	48
	393	83	214	49	218	58	132	39	106	37	82	31	2, 332	50
	274	60	217	51	256	68	188	55	126	43	106	37	2, 300	50
	374	83	372	88	268	72	213	61	211	69	144	49	3, 241	71
Fairbanks, AlaskaFort Smith, ArkFort Wayne, IndFort Worth, TexFresno, Calif	289	46	226	44	155	40	87	29	48	25	38	31	2, 258	46
	375	85	392	94	228	61	214	61	204	66	133	44	3, 211	70
	397	87	318	74	246	66	181	53	145	49	131	46	2, 794	60
	324	74	341	82	213	57	191	54	187	60	175	56	2, 992	67
	418	94	399	95	367	99	293	84	275	90	132	44	3, 666	80

## UNITED STATES METEOROLOGICAL YEARBOOK

Table 13.—Monthly amounts and percentage of sunshine, 1936—Continued

	Jan	uary	Febr	uary	Ma	ırch	Aı	oril	M	ay	Ju	ne
Stations	Hours	Percentage of possible	Hours	Percentage of possible	Hours	Percent- age of pos- sible	Hours	Per- cent- age of pos- sible	Hours	Per- cent- age of pos- sible	Hours	Per- cent- age of pos- sible
Galveston, Tex_ Grand Junction, Colo_ Grand Rapids, Mich_ Green Bay, Wis_ Greensboro, N. C_	172 57	47 57 19 43 57	118 161 115 157 188	36 51 38 52 60	189 256 184 151 196	51 69 50 41 53	254 259 178 142 244	66 65 44 35 62	240 331 362 270 391	57 75 80 59 90	355 310 346 283 308	85 69 75 61 70
Harrisburg, Pa	136	45	146	47	147	40	196	49	360	81	279	62
Hartford, Conn	150	51	160	52	168	45	192	48	335	74	255	56
Havre, Mont	171	63	212	72	240	65	258	63	378	80	367	76
Helena, Mont	107	38	176	59	241	65	282	69	352	75	323	68
Honolulu, Hawaii	230	67	212	64	193	52	225	59	207	51	248	62
Houston, Tex	165	51	116	36	189	51	220	57	176	41	283	67
	123	42	176	58	246	67	275	68	347	76	359	78
	125	41	136	44	237	64	221	56	362	81	365	81
	93	31	153	50	158	43	131	33	316	70	298	65
	178	55	176	54	233	63	298	77	294	70	316	75
Juneau, Alaska	56	25	192	71	134	37	207	48	198	38	329	60
Kalispell, Mont	65	23	121	41	218	59	253	62	325	69	293	61
Kansas City, Mo	174	57	218	70	307	83	312	79	317	71	392	88
Keokuk, Iowa	185	62	229	74	274	74	273	68	331	74	352	78
Key West, Fla	256	76	203	62	279	75	316	83	261	63	245	60
Knoxville, Tenn La Crosse, Wis Lander, Wyo Lansing, Mich Lincoln, Nebr	152	49	185	59	219	59	272	69	383	88	389	89
	146	50	194	64	205	55	233	58	338	74	337	73
	156	53	177	58	216	58	231	57	361	79	336	73
	43	15	120	39	153	41	134	33	320	70	267	58
	152	51	190	61	285	77	276	69	321	72	375	83
Little Rock, Ark Los Angeles, Calif Louisville, Ky Macon, Ga Madison, Wis	186	59	170	54	262	71	271	69	337	78	388	89
	216	68	166	52	243	65	244	62	326	76	355	82
	130	43	139	44	235	63	203	51	369	84	369	83
	158	50	152	48	266	72	269	69	376	87	331	77
	153	52	167	54	189	51	194	48	302	66	281	61
Marquette, Mich	30	11	154	51	167	45	140	34	229	49	236	50
	171	55	157	50	275	74	264	67	366	84	394	91
	197	61	181	56	258	69	248	64	310	72	388	91
	228	68	166	51	246	66	291	76	260	62	210	51
	105	37	159	53	213	58	221	54	369	80	381	81
Milwaukee, Wis	143	49	188	61	217	59	206	51	300	66	308	67
	144	50	186	61	164	44	248	61	337	73	348	75
	66	24	87	29	170	46	272	67	342	73	291	61
	169	53	172	53	230	62	262	68	292	69	390	92
	242	79	162	52	288	77	302	76	378	86	373	84
Nashville, Tenn New Haven, Conn New Orleans, La New York, N. Y Nome, Alaska	155	50	164	52	240	65	239	61	382	88	372	85
	156	52	159	51	186	50	204	51	344	77	273	60
	153	47	163	50	216	58	262	68	235	56	362	86
	185	62	183	59	217	58	218	54	366	82	287	63
	41	25	121	49	219	60	229	50	303	52	241	37
Norfolk, Va	134	43	138	44	193	52	256	65	385	88	297	67
	100	35	144	47	126	34	116	29	234	51	251	55
	57	20	56	18	85	23	124	31	165	36	222	47
	155	52	181	59	266	72	283	71	298	66	357	79
	202	64	222	70	308	83	318	81	325	75	397	91
Omaha, Nebr	172	58	208	67	294	79	308	77	362	81	398	88
Oswego, N. Y	53	18	82	27	137	37	155	38	324	71	311	68
Parkersburg, W. Va	57	19	101	32	134	36	125	31	320	72	320	72
Pensacola, Fla	149	46	173	53	230	62	268	69	275	65	374	89
Peoria, Ill	148	50	181	58	242	65	262	66	339	75	356	<b>79</b>

Table 13.—Monthly amounts and percentage of sunshine, 1936—Continued

	Jı	aly	At	ıgust	Sep	tembe	r (	Octobei	r	Nove	ember	Dec	ember	Ann	ual
Stations	Hours	Per- cent- age of pos- sible	Hour	Per cens age pos sibl	t- of Hour	Pe cen age possib	of House	rs ag	er- nt- e of os- ole	Hours	Per- cent- age o pos- sible	f Hour	Per cent age of possible	of Hours	Per- cent- age of pos- sible
Galveston, Tex	343	65 76 86 76 66	248 316 290 216 276	61 74 67 50 66	215 290 235 220 241	78 63	25 16 15	$ \begin{array}{c cccc} 4 & 7 \\ 6 & 4 \\ 6 & 4 \end{array} $	3 9 6	191 268 129 107 190	59 89 44 37 62	162 154 116 97 111	51 53 41 35 37	2, 633 3, 113 2, 580 2, 279 2, 806	58 69 55 50
Harrisburg, Pa_ Hartford, Conn_ Havre, Mont_ Helena, Mont_ Honolulu, Hawaii_	314	73 68 86 80 62	213 255 360 326 272	50 60 81 74 68	184 176 298 275 268	49 47 79 73 73	18- 163 213 213	4 53 3 48 2 63 2 63	3 8 8 8 8 8	103 158 217 179 224	34 54 79 64 67	142 124 113 115 181	48 44 44 43 54	2, 424 2, 452 3, 247 2, 970 2, 736	53 54 71 64 62
Houston, Tex Huron, S. Dak Indianapolis, Ind Ithaca, N. Y Jacksonville, Fla	413	64 88 78 78 69	277 307 352 237 321	68 71 83 55 78	235 292 237 228 255	64 78 64 61 69	232 213 204 182 198	2 65 62 1 59 2 53	5 2	144 186 156 78 167	45 64 52 26 52	122 121 150 79 115	39 44 52 28 36	2, 435 3, 058 2, 903 2, 313 2, 849	54 66 63 49 63
Juneau, Alaska Kalispell, Mont Kansas City, Mo Keokuk, Iowa Key West, Fla	431	30 89 94 89 70	178 363 323 320 262	37 82 76 75 65	90 237 189 188 239	26 63 51 50 65	30 213 202 175 290	63 58 51		13 100 246 202 222	5 36 81 68 68	47 20 160 168 212	23 8 55 58 64	1, 637 2, 640 3, 266 3, 101 3, 076	34 55 72 68 69
Knoxville, Tenn La Crosse, Wis Lander, Wyo Lansing, Mich Lincoln, Nebr	287 399 311 356 424	65 85 67 77 92	313 282 298 283 323	75 65 69 66 76	274 231 293 220 250	74 62 78 59 67	200 154 184 167 227	45	6	168 166 200 87 242	54 58 69 30 81	112 111 174 103 136	37 40 62 37 47	2, 954 2, 796 2, 938 2, 254 3, 202	65 61 65 48 70
Little Rock, Ark Los Angeles, Calif Louisville, Ky Macon, Ga Madison, Wis	355 321 306 294 378	68 67	368 334 327 342 274	88 81 78 83 64	264 304 221 254 173	71 82 59 68 46	216 237 206 215 155	62 67 60 61 45	1 1	205 272 187 198 172	66 87 62 63 59	127 205 139 111 141	42 67 47 36 50	3, 149 3, 224 2, 832 2, 966 2, 578	69 72 62 65 56
Marquette, Mich Memphis, Tenn Meridian, Miss Miami, Fla Miles City, Mont	318 349 218 286 403	79 50 68	122 359 287 250 278	28 86 70 62 64	179 243 237 225 272	48 65 64 61 72	108 200 222 237 205	32 57 63 66 61	1 1	.88	17 58 53 58 57	57 118 104 212 83	21 39 33 65 31	1, 789 3, 078 2, 816 2, 797 2, 853	38 67 62 63 61
Milwaukee, Wis	425 405 287	90 85 66	284 314 359 312 333	66 72 82 76 79	238 266 276 280 341	63 71 73 76 91	144 184 244 268 234	42 54 72 76 67	1 1 2	62 61 02	47 56 57 63 92	124 112 58 153 202	44 41 22 49 68	2, 686 2, 890 2, 730 3, 018 3, 417	58 62 58 67 76
Nashville, Tenn	343 289 325	$   \begin{array}{c cccc}     75 & 2 \\     67 & 2 \\     71 & 2 \\   \end{array} $	307 288 263 255 .76	73 67 64 60 34	230 209 258 230 130	62 56 70 62 33	175 195 264 218 110	50 57 75 63 36	1:	62 81 74	54 57	129 131 141 149 16	43 46 44 52 12	2, 874 2, 649 2, 788 2, 806 1, 859	63 58 62 62 39
North Platte, Nebr	248 297 392	53   2 52   2 85   3	40 42	74 48 55 80 95	262 176 225 278 224	70 47 60 74 60	246 148 164 237 225	71 43 48 69 64	14 23	$     \begin{array}{c c}       97 & 3 \\       44 & 3 \\       34 & 7     \end{array} $	33 51 79	43 165	37 16 57	2, 820 1, 948 1, 822 3, 187 3, 419	62 43 39 70 75
Oswego, N. Y Parkersburg, W. Va Pensacola, Fla	375   8 297   6 252   8	$     \begin{array}{c c}       81 & 2 \\       36 & 2 \\       59 & 3     \end{array} $	55 43 08	59 57 75	225 228 236 270 223	60 61 63 73 60	255 147 145 266 201	74 43 42 75 58	23 4 11 20 20	13   1 18   3 03   6	5 39 33	106 117 141	38 40 45	3, 351 2, 216 2, 214 2, 908 3, 072	73 46 47 64 67

# UNITED STATES METEOROLOGICAL YEARBOOK

Table 13.—Monthly amounts and percentage of sunshine, 1936—Continued

	Jan	uary	Febr	ruary	Ma	arch	Aı	oril	M	ау	Ju	ne
Stations	Hours	Percentage of possible	Hours	Per- cent- age of pos- sible	Hours	Percentage of possible	Hours	Percentage of possible	Hours	Per- cent- age of pos- sible	Hours	Per- cent- age of pos- sible
Philadelphia, Pa	165	55	164	53	196	53	212	53	364	82	243	54
	255	80	223	70	311	84	347	89	409	95	413	96
	91	31	186	60	166	45	170	43	376	84	347	77
	125	43	122	40	203	55	248	62	328	72	309	67
	159	49	139	43	213	57	269	69	253	60	381	90
Portland, Maine Portland, Oreg Providence, R. I Pueblo, Colo Raleigh, N. C	154	53	182	60	191	52	213	53	337	74	320	69
	88	31	86	28	144	39	197	48	267	58	261	55
	167	57	163	53	187	50	191	48	325	72	248	55
	196	64	227	72	333	90	340	86	335	76	373	84
	167	54	189	60	224	60	264	67	386	88	291	67
Rapid City, S. Dak	160	55	183	60	257	69	260	64	370	81	369	80
Reading, Pa	129	43	128	41	148	40	179	45	345	77	241	54
Richmond, Va	155	51	157	50	198	53	228	58	384	87	269	61
Rochester, N. Y	55	19	139	45	150	40	121	30	318	70	331	72
Roseburg, Oreg	79	27	68	22	160	43	246	61	272	60	260	57
Roswell, N. Mex	218	69	263	82	310	83	316	81	283	66	387	90
	118	39	126	40	266	72	296	74	348	78	348	78
	188	62	200	64	302	81	294	74	314	70	384	85
	100	33	152	49	283	76	239	60	339	76	373	84
	132	44	143	46	270	73	318	79	390	87	352	78
San Antonio, Tex	210	64	123	38	197	53	255	66	190	45	299	71
	202	64	173	54	232	62	229	59	288	67	263	61
	164	55	160	52	216	58	229	57	366	82	294	66
	137	45	154	49	284	77	276	70	339	77	342	77
	141	46	152	48	254	68	269	68	341	78	332	75
San Juan, P. R. Sante Fe, N. Mex. Saulte Ste. Marie, Mich. Savannah, Ga. Scranton, Pa.	242	70	246	73	310	83	281	75	209	52	272	69
	268	86	236	74	331	89	326	83	354	81	386	88
	58	20	147	49	157	42	146	36	268	58	300	64
	167	52	147	46	221	59	241	62	274	64	307	72
	104	35	162	52	183	49	194	48	356	79	297	66
Seattle, Wash	101	37	103	34	124	33	160	39	212	45	211	44
	116	40	165	54	227	61	263	65	381	83	372	80
	141	48	185	60	252	68	283	71	341	75	364	80
	82	30	107	36	216	59	265	65	325	69	311	65
	121	40	147	49	209	56	219	55	339	76	345	77
Springfield, Mo	138	45	198	63	265	71	264	67	301	69	395	90
	68	23	135	44	162	44	124	31	309	68	306	67
	180	55	197	60	204	55	316	82	308	73	275	66
	98	35	125	42	177	48	192	47	183	39	274	57
	141	46	159	51	232	63	232	58	346	78	364	82
Toledo, Ohio Trenton, N. J Valentine, Nebr Vicksburg, Miss Walla Walla, Wash	67	23	134	44	189	51	124	31	304	67	295	65
	161	54	174	56	193	52	228	57	368	83	302	67
	170	58	196	64	269	73	255	63	338	74	360	78
	150	47	112	35	218	59	229	59	308	72	395	93
	40	14	61	20	185	50	260	64	328	71	288	61
Washington, D. C	152	50	152	49	169	46	198	50	367	83	268	60
	189	62	212	68	326	88	333	84	326	74	412	93
	141	51	200	67	224	61	281	68	382	81	332	69
	186	59	165	52	226	61	271	69	360	83	346	80
	89	30	78	25	232	63	280	70	356	79	340	75
Wytheville, Va_	130	42	168	53	191	52	184	47	339	77	275	62
Yakima, Wash	92	33	169	56	280	76	310	76	358	77	322	68
Yellowstone Park, Wyo	113	40	78	26	198	53	231	57	326	71	307	66
Yuma, Ariz	273	86	270	84	340	92	375	96	423	98	423	99

Table 13.—Monthly amounts and percentage of sunshine, 1936—Continued

	Ju	ly	Aug	gust	Septe	mber	Oct	ober	Nove	mber	Dece	mber	Ann	ual
Stations	Hours	Per- cent- age of pos- sible	Hours	Per- cent- age of pos- sible	f Hours	Per- cent- age of pos- sible	Hours	Per- cent- age of pos- sible	Hours	Per- cent- age of pos- sible	Hours	Per- cent- age of pos- sible	Hours	Per- cent- age of pos- sible
Philadelphia, Pa	372	60 85 84 65 67	273 349 343 325 294	64 84 80 75 72	208 320 281 328 228	56 86 75 88 62	201 298 233 253 237	58 85 68 74 67	156 267 160 221 211	52 85 54 76 66	119 228 140 101 141	41 73 49 36 44	2, 572 3, 790 2, 879 2, 863 2, 811	57 84 62 63 62
Portland, Maine Portland, Oreg Providence, R. I Pueblo, Colo Raleigh, N. C	332	71	313	72	221	59	215	63	132	46	116	42	2, 726	60
	353	74	322	74	259	69	214	63	182	64	18	6	2, 390	51
	275	60	241	56	183	49	205	60	150	51	115	40	2, 450	54
	360	80	300	71	277	74	213	61	246	81	178	60	3, 379	75
	304	68	290	69	275	74	247	71	202	66	99	33	2, 938	65
Rapid City, S. Dak	424	90	348	80	307	82	238	70	205	71	135	49	3, 255	71
Reading, Pa	315	69	235	55	187	50	173	50	126	42	130	45	2, 336	51
Richmond, Va	248	55	248	59	262	70	217	62	209	69	114	38	2, 689	59
Rochester, N. Y	366	79	268	62	224	60	126	37	77	26	104	37	2, 278	48
Roseburg, Oreg	348	75	381	88	262	70	200	58	102	35	40	14	2, 419	51
Roswell, N. Mex. Sacramento, Calif. St. Joseph, Mo. St. Louis, Mo. Salt Lake City, Utah.	328	75	333	80	234	63	241	68	233	74	248	80	3, 395	76
	420	93	402	95	362	97	300	87	261	87	129	44	3, 376	74
	425	93	318	75	203	54	211	61	242	81	163	56	3, 242	71
	391	86	340	80	182	49	175	50	229	76	135	46	2, 938	64
	349	76	366	86	331	88	260	76	245	82	150	52	3, 303	72
San Antonio, Tex	270	63	292	72	211	57	221	62	138	43	160	53	2, 567	57
San Diego, Calif	284	65	295	71	285	77	218	62	232	74	188	60	2, 888	65
Sandy Hook, N. J	332	73	313	74	237	63	221	64	172	57	129	44	2, 834	62
San Francisco, Calif	374	83	282	67	318	85	254	73	240	79	181	61	3, 182	70
San Jose, Calif	398	89	339	81	330	89	258	74	223	73	156	52	3, 192	72
San Juan, P. R. Sante Fe, N. Mex. Saulte Ste. Marie, Mich. Savannah, Ga. Scranton, Pa.	264	65	227	58	220	60	220	61	236	70	224	65	2, 950	67
	347	78	334	80	298	80	274	79	279	91	232	77	3, 665	82
	392	82	209	48	135	36	90	27	74	26	23	9	1, 999	41
	313	72	272	66	221	60	202	57	174	55	87	28	2, 626	58
	353	77	278	65	236	63	157	46	116	39	99	34	2, 535	54
Seattle, Wash Sheridan, Wyo Sioux City, Iowa Spokane, Wash Springfield, Ill	330	68	281	64	230	61	128	38	121	43	52	20	2, 052	44
	388	82	353	81	313	83	229	68	191	67	99	36	3, 096	67
	429	93	336	78	259	69	221	65	196	67	107	37	3, 114	68
	424	88	366	83	270	72	258	77	168	60	65	25	2, 857	61
	386	85	346	81	212	57	184	53	216	72	147	51	2, 872	63
Springfield, Mo-Syracuse, N. Y-Tampa, Fla-Tatoosh Island, Wash-Terre Haute, Ind	398	89	322	77	210	56	200	57	242	79	148	50	3, 080	68
	374	80	276	64	237	63	162	47	96	33	84	30	2, 333	50
	249	59	272	67	232	63	226	64	198	61	183	57	2, 841	64
	339	70	258	58	203	54	158	47	124	44	79	30	2, 210	48
	345	76	355	84	226	60	203	59	193	64	158	54	2, 954	65
Toledo, Ohio	368 343 412 286 417		286 298 312 329 374	67 70 73 80 86	222 233 281 286 287	59 62 75 77 76	162 204 236 227 282	47 59 69 64 83	96 164 202 148 168	33 55 69 47 59	119 150 130 97 34	42 51 46 31 13	2, 366 2, 818 3, 162 2, 786 2, 724	51 62 69 61 57
Washington, D. C	271 426 412 330 373	75	265 384 291 299 348	63 91 66 72 81	216 2 <b>52</b> 265 256 320	58 67 70 69 85	185 255 203 230 265	53 74 61 65 77	160 264 183 200 248	53 87 66 64 84	156 165 140 112 104	56 54 36	2, 560 3, 543 3, 055 2, 982 3, 034	56 78 67 65 66
Wytheville, VaYakima, WashYellowstone Park, WyoYuma, Ariz	228 404 307 395	84 65	217 378 301 381	52 86 69 92	197 298 286 363	53 79 76 98	163 298 223 318		177 159 193 282	58 57 67 90	95 98 60 264	22	2, 365 3, 168 2, 621 4, 105	52 68 56 92

#### EXCESSIVE RAINFALL, 1936

Table 14 contains statistics of maximum amounts of rainfall during the calendar year 1936. The method of tabulating excessive precipitation has been changed, beginning with the

year 1936, to meet the needs of many sewerage engineers.

The method heretofore used gave the accumulated depth of precipitation for each 5 minutes for a storm in which the rate of fall equaled or exceeded 0.25 inch in any 5-minute period or 0.30 inch in any 10-minute period, etc., and 0.80 inch in any 1-hour period, or 1.40 inch in 2 hours, the tabulation beginning with the 5-minute period where the rate of 0.05 inch in 5 minutes began and continuing for 5-minute periods up to 120 minutes.

The present method gives the maximum fall of precipitation for the periods 5 to 180 minutes, the maximum amounts being taken for the periods in which the fall is the greatest for the given time and is tabulated to show the maximum amounts for 5, 10, 20, 30, 45, 60, 80, 100, 120, 150, and 180 minutes, even if the fall does not equal the excessive rate for some of the periods.

and 180 minutes, even if the fall does not equal the excessive rate for some of the periods.

Table 14 shows for most stations of the Weather Bureau furnished with self-registering gages, the maximum amounts of precipitation in 5, 10, 20, 30, 45, 60, 80, 100, 120, 150, and 180 minutes. The following table A, showing limits at which precipitation is considered as excessive for all stations, except in the Southern States, including North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Tennessee, Arkansas, Louisiana, Texas, Oklahoma, and San Juan, P. R.:

Table A .- Showing limits at which precipitation may be considered as excessive

Duration (in minutes)	Depth of pre- cipitation (in inches)	Duration (in minutes)	Depth of pre- cipitation (in inches)
5 10 15 20 25 30	0. 25 . 30 . 35 . 40 . 45 . 50	35 40 45 50 60	0. 55 . 60 . 65 . 70 . 80

This table is made up from the formula A=t+20, where A is the accumulated depth in hundredths of inches and t is the time in minutes.

For the Southern States, table B is used. This table is made up from the formula A=2t+30:

Table B.—Showing limits at which precipitation may be considered as excessive

Duration (in minutes)	Depth of pre- cipitation (in inches)	Duration (in minutes)	Depth of pre- cipitation (in inches)
5	0. 40	40	1, 10
10	. 50	45	1, 20
15	. 60	50	1, 30
20	. 70	60	1, 50
25	. 80	80	1, 90
30	. 90	100	2, 30
35	1. 00	120	2, 70

Similar data for the years 1896 to 1934, inclusive, have been presented in the appropriate annual reports of the Chief of the Weather Bureau and for the year 1935 in the United States Meteorological Yearbook (1935). The published data prior to 1896 consists of a record of maximum amounts of rainfall in 5- and 10-minute periods, also in 1 and 24 hours. The annual report for 1895-96 contains a summary of the records which up to that time had been made at the principal stations supplied with automatic gages.

The excessive precipitation data for the years 1897–1935, inclusive, show the accumulated amounts of precipitation for each 5 minutes during all storms in which the rate of fall equaled or exceeded 0.25 inch in any 5-minute period, or 0.30 inch in any 10-minute period, or 0.35 inch in any 15-minute period, etc.

Normal standard time at the place of occurrence is employed in these tables.

Table 14.—Maximum precipitation for stated intervals during 1936 at all stations furnished with self-registering gages

Stations and dates	N	faxin	num	amo:	unts 5 to 1	of pro	ecipi inut	tatio	n (in	inch	ies)		M	axim	um :			of pre			n (in	inch	es)
Stations and dates	5	10	20	30	45	60	80	100	120	150	180	Stations and dates	5	10	20	30	45	60	80	100	120	150	180
NEW ENGLAND STATES												MIDDLE ATLNT'C- STATES-contd.											
Eastport, Maine: May 13 June 12	0. 23	0.35	0.47	0. 53	0. 58	0. 62	0. 63	0. 63	0. 63	0. 64	0. 64	Atlantic City, N. J.: June 19 July 24											
Aug. 15	. 42	. 53	. 63	. 64	. 64	. 65	. 65 . 90	. 65 1. 02	. 66 1. 02	. 66 1. 04	. 66 1. 06	July 29 Aug. 29 Sandy Hook, N. J.:	. 24	. 40	. 42	. 42	. 43	. 43	. 43	. 43	. 43	. 43	. 43
June 12 Burlington, Vt.: May 13	. 24	. 32	. 44	. 44	44	. 98	44	44	44	47	58	June 11 June 18 July 5	. 29	. 56	. 79	. 39 . 90 . 42	. 92	. 96	1.00	1.10	. 50 1. 12 . 46	1.12	1. 13
July 9-10 July 11 Aug. 15 Aug. 29	. 27	.47	. 58	. 64	. 66	. 67	. 67	. 67	. 67	. 67	. 67	July 14 Sept. 18 Oct. 1	.10	. 22	. 36	. 52	.75	. 94	1. 16 1. 02	1. 34 1. 18	. 97 1. 48 1. 32 1. 02	1. 75 1. 44	1. 98 1. 51
Northfield, Vt.: July 10 Aug. 16	. 15	. 33	. 40	. 43	. 45	. 47	. 49	. 50	. 59	. 66	. 77	Oct. 17. Trenton, N. J.: May 13. July 29.	. 29	. 47	. 60	. 60	. 61	. 61	.81		. 86	. 86	. 86
Aug. 23	.41	. 61	. 64	. 66	.71	. 76	. 84	. 86	. 87	. 89	. 90	Aug. 15	. 28	. 46	. 54	. 55	. 55	. 55	. 57	. 58 . 74 . 88	. 58	. 59	. 59
July 18 Dec. 31 Block Island, R. I.:	. 25	1	. 58	. 62	. 64	. 65		. 73	. 73	. 74		Baltimore, Md.: May 3 May 18 May 27	. 17	.31	. 34	. 50	. 65	. 77	. 77	. 78	91	93	1. 04 1. 06 . 47
June 14. July 18. Sept. 18. Providence, R. I.:	. 36	. 33	. 46	.48	. 50 . 50 . 66	. 52	. 53	. 62 . 55 1. 14	. 55	. 55	. 55	July 20	. 22	. 36	. 36	. 55	. 73	. 99	1.03	1.04	. 66 . 76 1. 05	1.07	1.08
July 14 Aug. 17 Sept. 12	. 25	.37 .32 .47		. 65	. 51	. 65	. 65	. 52 . 65 . 90	. 65	. 65		Aug. 25. Aug. 29. Washington, D. C.: May 3.	. 53	. 89	1.48	1. 53	1. 56	1. 57	1. 58	1. 58	. 69 1, 91	1.95	1. 98
Hartford, Conn.: June 3 July 24	.39	. 58	. 68	. 68	. 69		. 75	. 81	. 84	. 85		May 18 May 18 June 31	. 29	. 35	. 48 . 89 . 73	. 48 1. 08 . 75	. 65 1. 11 . 80	. 68 1. 15 . 80	. 68 1. 15 . 80	. 69 1. 17 . 80	. 69 1. 17 . 80	. 69 1. 17 . 80	. 69 1. 21 . 80
New Haven, Conn.: Jan. 3 June 12 June 12-13	. 11	. 56	. 93	1.21	1.70	. 65 2. 08 1. 22	2.53	2.82	3. 12	. 82 3. 29 2. 39	3.43	July 23 July 24 Aug. 21 Aug. 22	. 30	. 40	. 47 1. 18	1. 33	. 48 1. 42	. 48 1. 64	. 48 1. 75	. 48 1. 78	1. 94 48 1. 79 . 75	. 48 1. 79	1.83
July 18	. 30		. 92	1.12	1.44	1. 75 . 56	1.93	1.97	2.02	2.09	2.40	Aug. 22 Cape Henry, Va.: Jan. 19 Apr. 6	. 24					i			. 80 . 51 1. 20 2. 13		
MIDDLE ATLANTIC STATES Albany, N. Y.:												Sept. 18 Oct. 1 Oct. 16	. 10	. 40	. 04	. 91	1, 18	1. 53	1. 54	2. 04	1. 20 2. 13 2. 05 1. 71	2.00	2. 05
May 3 May 12 July 11	. 36	. 50	. 53	. 53	. 54	. 54	. 54	. 54	. 54	. 54	. 54	Lynchburg, Va. <sup>1</sup> Norfolk, Va.: June 4	. 23	. 39	. 63	. 80	, 93	1. 00	1.04	1. 12	1. 20	1. 27	1. 30
Aug. 10. Binghamton, N. Y.: May 3. June 18.	. 16	. 36	. 44	. 52		. 80 . 54 . 71	. 55	. 57	. 60	1. 04 . 61 . 81	. 62	July 5	. 15	. 28	1 18	1 40	1 56	1 62	1.82	2 18	1. 04 . 47 2. 24 1. 29	2 30	2 34
June 20 Aug. 14 Aug. 19 New York, N. Y.:	.34	. 57	. 74	. 79	. 95	. 96	. 96	. 96	. 96	. 96	. 96	July ?9 Sept. 18 Oct. 1	. 26	. 35	. 42	. 56	. 46 . 76 1. 05	. 65 . 99 1. 13	. 71 1. 16 1. 29	. 72 1. 53 1. 34	. 74 1. 72 1. 35	. 77 2. 03 1. 35	2. 35 1. 36
New York, N. Y.: May 13 June 18 July 14	. 23	. 32	. 46	. 63	. 76	. 77	. 78	. 87 1. 20	. 90	. 92	. 92	Oct. 16 Richmond, Va. June 8 July 12	. 39	. 62	1.04		1.80	1.87	2.00	2. 09	1. 55 2. 14 1. 10	2. 16	2, 17
Aug. 23 Sept. 18 Oct. 17	. 16	. 28	. 48	. 58	. 67	. 67	. 67 1. 08	1. 29	1. 52	. 71	. 82 2. 12	July 24 Aug. 16 Aug. 16	. 44 . 20 . 22 . 28	. 31	. 39	. 43	. 44	. 45	. 45	. 45	. 45	. 45	
Harrisburg, Pa.: May 3  June 18	. 13	. 30	. 40	. 45	. 50	. 51	. 52	. 52	. 52	. 52 1. 05	. 52 1. 05	Oct. 9 Wytheville, Va.: Aug. 14 Sept. 29	. 35	. 29	. 80	. 87	. 90	. 90	. 90	. 90	. 73 . 90 1. 19	. 90	. 90
June 28	. 26 . 27 . 32	. 48	. 75	1.01	1. 16	1. 21 . 94 1. 28	1, 28 . 94 1. 32	1. 47 . 96 1. 38	1.47	. 96	1.48	SOUTH ATLANTIC STATES		. 404	. 00	. 00	. 12	. 00	1, 00	1. 10	1. 10	1, 01	1. 10
Aug. 15 Sept. 2 Sept. 8	. 16 . 27 . 25	. 39	. 48	. 55	. 69 . 57 . 31	. 58	. 74 . 59 . 31	. 74 . 59 . 31	. 60	. 77 . 60 . 31	. 60	Asheville, N. C.: May 11	. 27	. 44	. 69	. 84	. 93	. 98	. 99	1. 03	1.08	1. 12	1. 14
Philadelphia, Pa.: June 18 July 29 Aug. 6	. 19 . 32 . 18	. 29 . 53 . 27	, 69		. 76 . 93 . 44	. 94	. 87 . 94 . 45	. 94	. 94		. 99	July 21 July 29 July 30	. 31 . 38 . 20	. 51 . 52 . 34	. 95	1.03	1.18	1.27	1.37	1.38	. 86 1. 39 1. 71 1. 52	1.40	1. 52
Reading, Pa.: May 13 June 12	. 22	. 34	. 34	. 35	. 36 1. 02	. 36	. 36 1. 27	. 36 1. 37	. 36	. 36 1. 55	. 36 1. 59	Sept. 3 Oct. 7 Greensboro, N. C.:	. 36	. 84	1. 34	1.75	2.08	2. 11	2. 17	2, 20	2, 20	2. 21	2. 23
June 18	. 23	. 30	. 37	.42	. 45	. 92	. 45	. 45 . 92 . 76	. 45 . 92 . 76	. 45 . 92 . 76	. 45 1. 03 . 76	Jan. 19 Apr. 6 June 18 July 10	. 46	. 60	. 63 . 63 . 70	. 67 . 71 . 97	. 73 . 88 1. 28	. 79 . 90 1. 32	. 86 . 91 1. 35	. 91 . 91 1. 35	. 95 . 93 . 91 1. 39	. 98 . 91 1. 48	1. 06 . 91 1. 56
Aug. 23 Aug. 25 Oct. 7		. 45	. 59	. 59	. 59 . 89 . 72	. 59	. 59 . 97 . 76	. 59	1.02	. 59 1. 08 . 83	1.08	Aug. 7 Hatteras, N. C.:	. 37	. 59	. 91	1.02 .89	1.05	1.07	1. 11	1. 12 . 92	1.12	1.12	1. 13
Scranton, Pa.: June 11 June 18 June 20	.37	.60	.90	1. 21	1.38	1. 40 . 87 1. 78	1. 41 . 94 1. 86	1. 41 . 97 1. 95	1. 42 . 97 2. 47	1. 51 . 99 2. 74	1. 52 1. 02 2. 75	June 20 July 1 July 13 Aug. 8	.36	. 55	. 81 1. 06	1.02 1.36	1. 19 1. 46	1. 32 1. 50	1. 33 1. 52	1.37 1.53	1. 11 1. 41 1. 59 2. 74	1.45 1.61	1. 47 1. 61
Aug. 14 See footnotes at	. 23	. 41	. 53	. 57	. 67	. 72	. 73	.78	. 73	. 74	.74	Dec. 19	. 25	. 44	. 83	1.05	1. 25	1. 32	1. 35	1. 38	1. 44	1. 57	1. 63

Table 14.—Maximum precipitation for stated intervals during 1936 at all stations furnished with self-registering gages—Continued

												ontinued											
Stations and dates		//axir	num	amo	unts 5 to 1	of pr 180 m	ecipi inut	tatio	on (in	inch	nes)	Stations and dates	N	Iaxin	um		unts 5 to 1				n (in	inch	es)
	5	10	20	30	45	60	80	100	120	150	180	stations and dates	5	10	20	30	45	60	80	100	120	150	180
SOUTH ATLANTIC STATES—contd.												EAST GULF STATES—continued	-										
STATES—contd.  Raleigh, N. C.:	- 488 - 411 - 200 - 311 - 37 - 34 - 32 - 288 - 31 - 499 - 525 - 28 - 38 - 31 - 49 - 31 - 35 - 30 - 31 - 34 - 32 - 38 - 31 - 40 - 30 - 30 - 30 - 31 - 31 - 35 - 30 - 30 - 30 - 31 - 31 - 31 - 40 - 30 - 32 - 33 - 31 - 40 - 30 - 30 - 32 - 33 - 33 - 33 - 33 - 33 - 33 - 33	. 69 . 65 . 50 . 65 . 58 . 49 . 84 . 68 . 85 . 49 . 84 . 75 . 44 . 75 . 44 . 75 . 67 . 74 . 75 . 67 . 74 . 75 . 67 . 74 . 75 . 75 . 75 . 75 . 75 . 75 . 75 . 75	. 02 . 82	. 89 1	1. 1. 43 . 86 . 55 1. 19 1. 38 1. 19 1. 38 1. 100 1. 24 1. 35 1. 100 1. 24 1. 43 1. 43 1. 41 1. 41 1. 43 1. 43 1. 44 1. 41 1. 43 1. 44 1. 44 1. 43 1. 44 1. 40 1. 40 1. 40 1. 40 1. 40 1. 40 1. 52 1. 10 1. 10	1. 60	1. 78	1. 83 1. 07 1. 35 1. 07 1. 35 1. 55 1. 72 1. 51 1. 41 1. 39 1. 05 1. 27 1. 51 1. 27 1. 51 1. 27 1. 51 1. 27 1. 51 1. 27 1. 51 1. 51 1. 27 1. 51 1. 29 1. 25 1. 20	1. 41 1. 40 1. 1. 29 1. 52 1. 26 1. 26 1. 27 1. 29 1. 26 1. 26	1. 90   1. 91   1. 52   1. 14   1. 52   1. 14   1. 56   1. 59   1. 94   1. 41   1. 40   1. 12   1. 30   1. 53   1. 53   1. 53   1. 53   1. 53   1. 53   1. 53   1. 53   1. 65	1. 92 1. 92 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	Continued	0. 29 .41 .41 .42 .50 .34 .31 .37 .29 .44 .40 .31 .27 .40 .31 .27 .40 .31 .27 .40 .31 .27 .40 .31 .29 .43 .32 .43 .32 .43 .32 .43 .32 .43 .33 .34 .35 .36 .37 .29 .40 .31 .37 .29 .40 .31 .32 .32 .43 .33 .32 .44 .40 .31 .32 .33 .32 .43 .44 .40 .20 .30 .30 .30 .30 .30 .30 .30 .3	69	1. 02 1. 22 1. 20 1. 12 1. 02 1. 22 1. 20 1. 20 1. 12 1. 20 1. 12 1. 20	1. 1.5   7.   7.   7.   7.   7.   7.   7.	1. 51 1. 13 1. 97 1. 33 59 1. 80 82 90 1. 73 76 1. 09 1. 16 1. 00 1. 15 1. 00 1. 15 1. 00 1. 16 1. 31 1. 77 1. 00 1. 16 1. 31 1. 11 1. 11	1. 66 1 2 2 2 4 1 11 1 3 1 2 9 1 1 2 1 1 2 1 1 2 1 1 1 1 1 1 1 1	1. 83 1. 31 1. 31 1. 32 1. 38 1. 31 1. 31 1. 31 1. 32 1. 31 1. 31 1. 31 1. 31 1. 31 1. 31 1. 31 1. 31 1. 32 1. 33 1. 32 1. 32 1. 32 1. 33 1. 32 1. 32 1. 33 1. 32 1. 32 1. 33 1. 32 1. 33 1. 32 1. 33 1. 32 1. 33	1. 94 1. 31 1. 32 2. 08 1. 55 5. 2. 48 1. 64 1. 1. 30 1. 24 1. 1. 30 1. 24 1. 1. 30 1. 24 1. 1. 30 1. 24 1. 1. 30 1. 24 1. 1. 17 1. 18 1. 1. 17 1. 18 1. 1. 17 1. 18 1. 17 1. 17 1. 18 1. 17 1. 17 1. 17 1. 18 1. 17 1. 15 1. 16 1. 17 1. 15 1. 16 1. 17 1. 15 1. 16 1. 17 1. 15 1. 16 1. 17 1. 15 1. 16 1. 17 1. 15 1. 17 1.	33 2. 36 1. 98 1. 24 1. 65 1. 14 1. 80 2. 68 84 1. 49 1. 12 1. 38 1.	2. 10 2. 10 2. 08 1. 69 1. 42 1. 69 1. 78 87 1. 25 1. 25 1. 17 1. 1. 17 1. 18 1. 18 1. 17 1. 18 1. 19 1. 19	2. 16 1. 39 2. 20 8 1. 70 3. 20 1. 80 . 78 8. 87 1. 28 8. 71 1. 28 8. 1. 25 1. 1. 20 1. 25 1. 20
July 4 July 13 Aug. 4 Aug. 5 Aug. 16 Sept. 20-21 Oct. 2 Oct. 13 Campa, Fla.: Mar. 10. July 4 (2) July 13 Aug. 18	. 36	59	69	75 96 1. 985 33 1. 57 1. 87 887 887 887 887 887 888 889 899 89 899 89 89 899 899 899 899 899 899 899 899 899 899 89 89 89 89 899 899 899 899 899 899 899 899 89 89 89 89 89 89 89 89 899 8 8 8 8 8	75 1	75 1.07 1.094 1.399 1.4551 .3666 1.06888 .8869 2.9388 1.3559 .559 .550 .500 1.000 1.	75 1	75	65 1. 75 1. 65 1. 47 1. 51 . 66 1. 68 1. 01 3. 64 1. 69 . 89 1. 91 . 91	66 1. 75 . 29 1. 68 1. 68 1. 51 . 66 1. 61 1. 61 1. 62 1. 63 1. 64 1. 65 1. 66 1. 66 1. 66 1. 67 1. 68 1	69 775 334 779 49 51 666 20 01 772	Sept. 26. Little Rock, Ark.: Apr. 5. June 7. July 21 Austin, Tex.: May 26. June 30. July 7. July 16. July 12. Aug. 30. Brownsville, Tex.: Apr. 22.	. 41	71 1. 49 . 51 . 64 1. 71 . 44 . 53 . 58 1. 65 . 76 1 .	01 1. 72 . 91 1. 15 1. 76 . 64 . 70 . 98 1. 93 1. 88 2.	03 1. 78 . 05 1. 47 2. 99 1. 91 1. 71 . 48 2. 09 1. 51 1	04 1. 78 1. 19 2. 06 1. 05 1. 71 . 01 2. 09 1. 66 1.	06 1. 80 . 14 1. 38 2. 12 1. 11 1. 71 . 23 2. 09 1. 35 2.	07 1. 81 . 42 1. 42 2. 18 1. 71 . 70 3. 10 1. 38 2.	08 1. 81 . 48 1. 44 2. 22 1. 31 1. 71 . 46 3. 10 1. 38 2.	11 1	33 1. 3 81 . 3 61 1. 5 50 2. 3 26 1. 3 46 1. 3 71 . 3 10 1. 1 3 38 2. 3	36 81 62 51 27 59 71 22 10 38
Aug. 30 Sept. 4	. 33	17 . 7	73 1. (	01 1. 3	36 2. 6 35 1. 4	12 1. 5	14 2. 6 12 1. 5	59 2. 7 56 1. 8	71   2. 7 58   1. 5	71 2. 7 58 1. 5	8	Corpus Christi, Tex.:	. 02	04 1.	00 1.	04 1. (	04 1. (	05 1.	74 1.	77 1.	77 1. 8	30 1.8	81
Sept. 29	34 5	5 .9	4 1. 2	5 1.4	1 1. 7	5 2. 5	$\frac{3}{2}$ . 8	9 3. 1	39 1. 3 17 3. 7 37 1. 4	3 3. 9	0 8	Dallas, Tex.: July 5 July 20 Sept. 14 Sept. 26 Fort Worth, Tex.:	40	64 . 6 70 1. 3 54 . 8 55 . 8	6 1. 3 6 1. 3 6 . 9	37 1. 4 37 1. 4 30 . 6 95 1. 1	57 . 6 49 1. 5 58 . 6 17 1. 2	67 . 58 1. 6 68 . 6 26 1. 6	86 . 8 61 1. 6 69 . 4 48 1. 6	87 . 9 63 1. 0 70 . 1	91 . 9 64 1. 6 70 . 7 77 1. 9	92 . 9 84 1. 6 70 . 7 93 2. 1	92 84 70 16
July 16 (2) Aug. 9 Aug. 10 See footnotes at en	43 . 6 25 . 4 d of ta	5 . 9 2 . 7 able.	4 1. 0	0 1. 0	5 1. 1:	2 1. 19	9 1. 3	2 1. 4	0 1. 4 1. 0	9 1. 5	9	May 28	371.0	5511. (	811. 3	86 1. 5	52 1. 7	78 2. :	19 2.	19[2. :	25 2. 2	6 2. 2	19

Table 14.—Maximum precipitation for stated intervals during 1936 at all stations furnished with self-registering gages—Continued

	IV.	laxin	ıum	amor	unts	of pre	ecipi	tation	n (in	incl	hes)		М	axim	um a		nts o				ı (in i	inche	es)
Stations and dates	5	10	20	30	45	1	80		120	150	180	Stations and dates	5	10	20	30	45	60	80		120	150	180
WEST GULF STATES—continued												OHIO VALLEY AND TENNESSEE—COD.											
Galveston, Tex.:  Apr. 28  Dec. 10  Houston, Tex.:											1.16	Aug. 14	0. 30 . 25	34	. 35	. 39	. 56	. 58	. 59	. 60	. 61	. 63	. 64
May 10 May 24 Aug. 23	. 38	. 53	. 85 1. 35	. 92 1. 87	1.00 2.15	1. 03 2. 34	1.08	1.30	1.41 2.40	1. 59	2. 13 1. 68 1. 2. 43	Aug. 28	. 18	. 25	, 45	. 49	. 55	. 60	. 66	1. 20 . 68	1. 35 . 70	1. 47 . 70	. 70
Palestine, Tex.: May 9-10 July 10		. 44	. 79	. 93	1. 01 . 73	1. 05 . 73	1. 07	1. 09 1. 16	1. 10	1. 17	7 1. 07 7 1. 18 5 1. 25	May 4 May 14 May 28 June 30	. 23	. 31	. 35	. 54 . 38 . 47	. 54 . 40 . 47 . 92	. 44	. 54 . 45 . 47	. 54 . 49 . 47	. 54 . 52 . 65 1. 39	. 53	. 54
July 13	. 50	. 43	1. 04 . 72	1. 05 1. 18 . 85	1. 15 1. 39 . 90	1. 19 1. 42 . 90	1. 42 . 90	1. 19 1. 42 . 90	1. 42	1. 43	3 1. 23 3 1. 43 0 . 90	July 1 July 5 July 27	1.17	. 32 . 82 . 48	. 47 1. 07 . 52	. 57 1. 16 . 53	. 94	1. 06 1. 34 . 53	1. 10 1. 34 . 53	1. 11 1. 35 . 53	1. 11 1. 68 . 53 . 59	1. 11 1. 98 . 53	1. 13 2. 14 . 53
May 25	. 43	. 66	1. 20 1. 01 1. 33	1. 62 1. 16 1. 39	1. 96 1. 45 1. 45	2. 23 1. 57 1. 48	2, 56 1, 76 1, 48	2. 81 1. 92 1. 48	2, 90 2, 16 1, 50	3. 02 2. 27 1. 58	2 3. 09 7 2. 39 5 1. 61 1 4. 65	July 29. Parkersburg, W. Va.: May 11. May 13.	. 21	. 27	. 37	. 39	. 40	. 40	. 40	. 40	. 40	. 40	. 40
Aug. 31 Sept. 13 Sept. 14 Sept. 20	. 42	. 65 . 75 . 66 . 69	1. 04 . 98 1. 18 . 73	1.35 1.01 1.39	1. 50 1. 08 1. 66 . 74	1. 58 1. 11 1. 72	1. 61 1. 11 1. 75 . 74	1. 62 1. 12 1. 76 . 74	1. 62 1. 12 1. 77	1. 62 1. 12 1. 72	2 1. 62 2 1. 19 7 1. 78 4 . 74	June 7	. 31 . 22 . 45	. 35	. 35 . 43 1. 05	. 35 . 44 1. 09	. 35 . 45 1. 09	. 35 . 45 1. 09	. 35 . 70 1. 10	. 35	. 35 . 72 1. 10	. 35 . 72 1. 10	. 35
San Antonio, Tex.: Apr. 27-28 June 24	. 23	. 38	. 67	. 97	1. 21 1. 09	1. 32 1. 09	1. 52 1. 09	1. 59 1. 19	1. 60 1. 19	1. 60	0 1. 61	Pittsburgh, Pa.: July 24 July 27 Aug. 5	. 15	. 24	. 36	. 45	. 71	. 80 1. 10	. 80 1. 11 . 75	. 80 1. 11 . 84	. 81 1. 11 . 99	. 81	. 81
Sept. 27OHIO VALLEY AND	. 43	. 66	. 83	. 84	. 85	. 85	. 93	. 95	. 95	11.03	311.03	Aug. 29 Sept. 12 Sept. 13 Sept. 29	. 33	. 44 . 38 . 27 . 23	. 51 . 38 . 38 . 42	. 52 . 38 . 50 . 53	. 53 . 38 . 59 . 76	. 59 . 38 . 80 . 89	. 68 . 38 . 83 1. 07	. 76 . 38 . 83 1. 27	. 82 . 38 . 83 1. 42	. 94 . 38 . 83 1. 62	1. 14 . 38 . 83 1. 87
TENNESSEE Chattanooga, Tenn.: May 12			. 86	1. 10	1. 28	1. 30	1. 39	1. 42	1, 43	1. 4	5 1. 45	Oct. 10 LOWER LAKE REGION	. 18	. 33	. 35	. 35	. 35	. 48	. 48	. 48	. 48	. 48	. 57
July 15	. 29	. 46	. 70	. 72	. 72 1. 41	. 72 1. 66	. 72 1. 72	. 72 1. 72	1.72	1. 75	2 2. 05 2 . 72 2 1. 72	Buffalo, N. Y.: Aug. 19 Aug. 22 Canton, N. Y.:	. 25			. 61 . 40	. 62 . 40	. 62 . 40	. 63	. 64	. 64 . 40	. 64	. 65
Apr. 5-6	. 27	. 58	. 66	. 66	. 67	. 75	1.13	1. 13	1.13	1. 1:	8 1. 50 3 1. 13 6 3. 07	June 18	. 38	. 71 . 51	1. 16	1. 55	2. 14 . 65	2. 34 . 73	2.35 .78	2. 42 . 87	1. 67 2. 42 . 95	2.44 1.06	2.44
Mar. 26		. 61	1.15	1.60	1.99	2.04	2.18	2, 29	2.32	2, 3	3 2. 50 2 2. 32 0 . 80	Aug. 23. Ithaca, N. Y.: July 3. Aug. 21. Oswego, N. Y.:	. 24	. 38	. 49	. 56	. 61 . 61 . 64	. 62	. 84			. 92	. 92
Aug. 5	. 24	. 30 . 33 . 40 . 70	. 36	. 38	. 39	. 42	. 94	. 43	. 77 . 43 1. 13	1. 38	7 . 77 3 . 43 8 1. 46 4 . 84	May 13	. 23	. 43	. 72	. 58	. 58	. 58	. 58	. 58	. 58	. 58	. 58
Dec. 30 Evansville, Ind.:	. 31	. 35	. 40	. 44	. 47	. 50	. 53	. 57	. 59	. 69	9 . 74	Aug. 23. Sept. 24. Rochester, N. Y.: May 2.	. 20	. 39	58	. 56	. 62	. 71	. 80	. 89	1. 01	1. 13	
Oct. 6 Oct. 9 Nov. 2-3 Indianapolis, Ind.:	. 23	. 34	. 36	. 43	. 66	. 67	. 69	. 70	. 70	1. 16	9 . 62 0 . 70 6 1. 23 0 1. 72	June 18 July 24 Sept. 24 Erie. Pa.: Nov. 2	. 32	. 31	. 43	. 45	. 46	. 48	1, 02	1. 21	1. 33 1. 31 1. 31	. 53 1. 34	. 53 1. 39
June 2		. 44	. 52	.78	. 90	. 95	. 96	. 96	.96	1.00	4 2. 15 0 1. 00 7 . 77	Cleveland, Ohio: May 2- May 27- June 7-		. 36	. 39	. 40	. 45	. 49	.51		. 54	. 68	.73 .48 .35
Feb. 25	.31	. 37 . 44 . 65 . 32	. 47 1. 18	1.37	1. 92	$\frac{.48}{2.36}$	. 48 2. 70	. 48 2. 72	2. 74	2. 8	3 . 84 1 . 52 3 2. 86 5 . 65	June 10. July 23. Oct. 6. Sandusky, Ohio:	. 20	. 30	. 43	. 45	. 51	1, 03	1. 07	1. 10	1.11	1.14	.52 1.16 .45
Aug. 28	. 35 . 32 . 35	. 56	. 71 . 68 . 43	. 72 . 74 . 55	. 72 . 76 . 69 . 73	. 73 . 77 . 71	. 73 . 78 . 73	. 74 . 78 . 75 . 73	. 74 . 78 . 75	. 75	4 . 74 8 . 78 5 . 75 3 . 73	July 4 July 23-24 Nov. 2 Toledo, Ohio	. 45	. 32	. 54	. 62	. 44	. 81 . 44	. 94	1. 04 . 45	1.06	1.06	. 68 1. 21 . 55
Nov. 2 Cincinnati, Ohio: Aug. 4 Aug. 16	. 23	. 33	. 55 1. 07 . 40	. 68 1. 13 . 40	1. 38 . 41	1. 07 1. 40 . 41	1. 28 1. 58 . 43	1. 43 1. 64 . 43	1. 57 1. 75 . 43	1. 79	9 1. 89 9 2. 02 3 . 44	June 6-7 July 23 Sept. 13-14	. 31	. 60	. 73	. 84	1. 10	1, 08	1. 58	1.61	1. 64 1. 43	1. 70	. 63 1. 71 1. 49 . 40
Sept. 2	. 16	. 31	. 45	. 67	. 84	. 89 . 59 1. 02	. 95 . 59 1. 05	1. 03 . 59 1. 09	1. 04 . 59 1. 09	1. 0	7 1. 11 9 . 59 9 1. 09 2 . 42	Fort Wayne, Ind.: June 2 June 29 July 23	. 28	. 29	. 31	. 33	. 34	. 34	. 34 . 52 1. 06	. 34 . 52 1. 33	. 34 . 52 1. 49	. 34 . 55 1. 50	. 34 . 57 1. 50
Columbus, Ohio: May 13 June 7 June 10	. 25	. 27	. 33	. 46	. 49	. 49	. 49 . 49 . 94	. 49	. 49	. 49	9 . 49 9 . 49 4 . 94	Aug. 20	. 32	. 59	. 88	. 94	. 96 . 39 . 69	1. 01 . 39 . 72	1. 07 . 39 . 76	1. 12 . 39 . 78	1. 16 . 42 . 80	1. 19 . 45 . 80	1. 20 . 46 . 80
July 27	. 21 . 46 . 33	. 36	. 37	. 37	1.05	1.06	1.06	1.06	1.06	1. 00	5 . 56 6 1. 06												

Table 14.—Maximum precipitation for stated intervals during 1936 at all stations furnished with self-registering gages—Continued

									g	gage	s	Continued											
Stations and dates		1axii	num	amo	unts 5 to	of pr	ecipi	itatio ses)	n (in	inch	ies)	Stations and dates	M	axin	um	amoı (5	ints to 1	of pro	ecipi inute	tatio	n (in	inch	es)
	5	10	20	30	45	60	80	100	120	150	180		5	10	20	30	45	60	80	100	120	150	180
LOWER LAKE REGION—Continued	1											UPPER MISSISSIPPI VALLEY—continued		_									
Detroit, Mich.: Apr. 28 May 2. June 1 Sept. 7-8 Sept. 30	16	. 33	. 45	.46	. 47	. 52	. 48	. 57	1. 29 . 58 . 53 1. 08 1. 00	. 58	. 58	Madison, Wis.:	. 22	. 36	. 59	. 65	. 85	. 88	1.01	1.17	1. 11 1. 26 . 50 . 57	1.35	1.48
UPPER LAKE REGION									1.00	1.00	1. 20	Mar. 23 Apr. 30	. 16 . 3.1 . 28	. 25 . 40 . 49	. 56	. 81	. 97	1.19	1.39	1.43	1. 46	1.48	1.50
Alpena, Mich.:  May 1  July 23  Escanaba, Mich.:  Sept. 6	. 26	. 35							. 77 . 33			Aug. 27 Sept. 5 Sept. 10 Nov. 1 Daveuport. Jowa:	. 22 . 18 . 33 . 36	. 35 . 28 . 54 . 50	. 58 . 45 . 76 . 56	. 67 . 55 . 80 . 56	. 74 . 62 . 88 . 56	. 84 . 69 . 90 . 58	1. 03 . 77 . 91 . 59	1. 09 . 86 . 92 . 61	1. 76 1. 13 . 92 . 93 . 61	1. 21 1. 01 . 98	1. 41 1. 05 1. 08
Grand Rapids, Mich.: June 2. Aug. 28 Sept. 11 Sept. 23.	. 14			ŀ			- 1	- 1	1	- 1		Aug. 19 Aug. 23 Aug. 27 Sept. 12 Sept. 16	. 22	.31	. 42	. 46	. 49	. 68	.60	.63	. 48 . 66 . 47 . 68 . 78 1 l. 25 1 l. 19 1	. 47	.67
Apr. 29 June 1-2 Aug. 22 Sept. 7 Sept. 11	.30 .16 .21 .35	. 44 . 21 . 25 . 54 . 57	. 65 . 36 . 42 . 75 1	. 65 . 50 . 56 . 00	. 65 . 77 . 57 . 08 1	. 65 . 84 . 59 . 09 1	. 65 . 91 . 59 . 10 1	. 65 . 97 . 59	. 65 1. 02 1. 60 1. 10 1. 10	. 65 . 03 . 62 . 10	. 65 . 04 . 66	Des Moines, Iowa: June 5-6 June 9 June 22 Dubuque, Iowa:	. 16 . 28 . 21	. 24	. 41 . 53 . 35	54 57 37	. 64	. 67 . 63 . 49	. 74	. 86 . 88 . 52	. 94 1	. 00 1	. 27 . 05 . 94 . 65
Marquette, Mich.: May 7- May 12- May 22	. 18	. 50	. 48	. 64	. 72	. 72	. 73	74	. 60	. 62	. 62	Aug. 27-28 Keokuk, Iowa: May 1	24	44	. 52	56 .	. 57 .	. 58	. 59	. 61	. 96 . 71 . 63 . 40	. 64	. 64
Sept. 10	. 16	. 33	. 45	. 61	. 64	. 66	. 67	. 71	. 72	72	. 72	Cairo, Ill.: Apr. 5 May 12 June 30	20 33 30	32 .	40 .	68 .	76 .	89 1.	. 08 1.	. 15 1.	. 19 1.	32 1.	38
Aug. 22	. 14	. 55			- 1				. 73 . 35 1.		- 1	Sept. 1	19 . 20 . 27 . 23 .	30 . 36 . 43 . 38 .	46 57 77 1. 51	48 . 78 . 02 1. 58 .	50 . 99 1. 24 1. 70 .	50 . 15 1. 39 1. 74 .	51 . 20 1. 55 1. 78 .	51 . 21 1. 63 1. 84 .	. 84 . 71 . 51 . 25 1. . 68 1. . 90 1.	52 . 30 1. 78 1. 04 1.	52 36 88 13
Aug. 16. Sept. 11. Sept. 13. Sept. 15. Oct. 9	. 18 . 33 . 24 . 61 . 29 . 35	32 46 40 11 11 38	38 46 66 45 1.	39 46 86 81 2	39 46 94 04 2.	40 47 95 15 2. 57	40 48 98 1. 20 2. 80	. 72 . 41 . 49 . 04 1. 26 2. 84 1. 09	72 41 49 09 1. 36 2. 02 1.	74 41 49 17 1. 39 2. 15 1.	75 41 49 21 39 21	Sept. 11 Sept. 15 Sept. 23 Sept. 27 Oct. 9	16 . 42 .	42 . 28 . 65 .	49	52 . 50 . 77 .	52 . 68 . 93 1.	54 83 01 1.	54 99 08 1.	54 . 99 . 29 1.	54 99 1. 31 1. 44 1. 19 1. 37 1.	54 . 00 1. 32 1.	56 00 33
Milwaukee, Wis.: May 10. May 17. May 31.	. 20	58 32 36	42 . 72 . 36 .	73 37 60	45 .	47 .	52 . 78 .	53 .	56 .	56 .	57	Mar. 23	23 20 36 	40 . 30 . 49 .	72 . 8 55 . 7 51 . 8	88 1.	09 1. 3 79 . 52	33 1. 79 .	68 1. 79 .	96 2. 79	08 2. 81 . 53	09 2. 3 80 . 8	11 84 53
Aug. 19	. 32 . 25 . 26	51 .	61 63 39	66 89 1. 62	70 00 1. 73	70 . 10 1. 77 .	75 20 1. 90 .	76 30 1. 90	76 35 1. 90 1.	85 90 1. 40 1. 12 1.	85 05 41 28	June 2	30 . 4 29 . 4 25 . 3 17 . 3	10 .4 15 .1 10 .6 10 .4	54 . 5 59 . 7 45 . 4 16 . 5	4 .8 7 .4 6 .8	75 . 1 82 . 8 47 . 4 85 1. 0	77	90] . ! 47] . 4 34] 1	59 77 93 47 52 1.	$     \begin{array}{c c}       94 & .9 \\       47 & .4 \\       75 & .4 \\    \end{array} $	77 . 7 94 . 9 17 . 4	77 94 47
Bismarck, N. Dak.: Sept. 5 Sept. 13 Devils Lake, N. Dak.:	.32 .	55 . 23 .	81	84 49	85 49	85	85	85 49	85 . 8 49 . 4	85		MISSOURI VALLEY Columbia, Mo.: Mar. 23	1 . 5	6 . 8	31 .9	9 1. 1	9 1. 3	6 1. 3	39 1. 3	39 1. 4	10 1. 4	(3) . (	13
July 8. Aug. 2I. Sept. 4. Williston, N. Dak.:	.18	34 . (	33 .9	91 1.	07 1.	22 1. 2	28 1. 3	96 . 9 35 1. 3	95 . 9 26 1. 4 96 . 9 38 1. 4	$\begin{bmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \end{bmatrix}$	96	May 18	8 .3 2 .4 4 .3 0 .5	5 .3 6 .4 0 .3 9 .8	8 .4 9 .4 6 .3 3 .8	6 .4 9 .4 8 .4 1 .8	9 .5 7 .4 9 .4 3 .4 4 .8	8 .5 9 .4 5 .4	51 . 5 51 . 5 19 . 4 17 . 5 14 . 8	52 . 5 53 . 5 19 . 4 50 . 5 34 . 8	52 . 5 57 . 6 19 . 4 52 . 5	52 . 5 4 . 6 9 . 4 2 . 8	5 9 7
UPPER MISSISSIPPI VALLEY Minneapolis,												Kansas City, Mo.:  May 23	9 .3	3 .4		. 5	3 .5	5 . 5	6 .54 .85 .9	6 .5	6 .9	6 .5	6 7 6
Minn.: May 22	. 19 . 2 . 19 . 3 . 25 . 3 . 41 . 6	4 .3	9 . 3	9 .3	9 .7 9 .3 7 .3 2 .9	$\begin{vmatrix} 9 & .4 \\ 8 & .4 \end{vmatrix}$	$\begin{bmatrix} 0 & .4 \\ 0 & .4 \end{bmatrix}$	$ \begin{array}{c c} 10 & .4 \\ 1 & .4 \end{array} $		$\begin{bmatrix} 0 & .4 \\ 4 & .4 \end{bmatrix}$	6 0 4	St. Joseph, Mo.:  May 23	3 .3 .3 .3 .3	3 . 6	9 . 39 4 . 79 5 . 42 7 . 58	. 39	9 . 39	9 . 4	0 . 4 4 1. 6 0 . 6	3 . 4 5 1. 9 0 . 6	4 . 4. 9 2. 3 0 . 60	$\begin{bmatrix} 1 & 2 & 3 \\ 0 & 6 \end{bmatrix}$	5 5 0
Aug. 21 La Crosse, Wis.: Apr. 30 May 6 May 22	23 . 3 20 . 2 15 . 2 23 . 3	1 .3 5 .4 4 .4	5 . 3	8 .3 5 .8 5 .5	9 . 4	0 . 4 4 1. 1 8 . 5	0 . 4 7 1. 2 8 . 5	0 . 4 20 1. 2 8 . 5	0 .4 4 1.3 8 .5	$\begin{bmatrix} 0 & .4 \\ 0 & 1.3 \\ 8 & .6 \end{bmatrix}$	$\begin{bmatrix} 0 & 1 & 1 \\ 2 & 1 & 1 \end{bmatrix}$	Dec. 30 23 Springfield, Mo.: 39 Mar. 23 39 June 30-July 1 20 July 16 22	69 . 33	. 72	.41	. 74	1 . 74	.74	4 .74	4 . 74	9 . 59	1 .74	£
July 18	20 .3 27 .4 24 .4	3 . 3	9 . 5	1 . 5	5 . 5	5 . 56	5 . 5	5 . 5	5 . 83 5 . 54 7 . 64 3 1. 59 8 . 88	5 . 6	5   1	Nov. 2	. 52	. 73	. 55	. 75	1. 02	1.05	1. 22	2 1. 25	1. 28	1. 28	7 }
See footnotes at end	i of tal	ble.	, , , ,		-1 -0			AT . U.	-1 - 0.	1.0.	r []	Sept. 12	.31	1.52	.62	. 67	67	. 69	70	70	77	79	

Table 14.—Maximum precipitation for stated intervals during 1936 at all stations furnished with self-registering gages—Continued

Stations and dates	M	axim	um a	mou (	ints of	of per .80 m	rcipii inut	tatio: es)	n (in	incl	ies)	Stations and dates	M	axim	um s	imou (5	nts o	of per	cipit inute	ation	n (in	inch	ies)
	5	10	20	30	45	60	80	100	120	150	180	Stations and dates	5	10	20	30	45	60	80	100	120	150	18
MISSOURI VALLEY— continued												SOUTHERN SLOPE—											
Lincoln, Nebr.: Apr. 28. June 16. Sept. 4. Sept. 26. Dmaha, Nebr.:	\$35 .33 .19 .17	0. 50 . 47 . 27 . 29	0. 66 . 51 . 49 . 46	0.70 .51 .50 .54	0. 80 . 52 . 53 . 70	0. 85 . 52 . 56 . 76	0. 93 . 52 . 63 . 89	0. 97 . 52 . 74 . 90	0. 98 . 52 . 78 . 92	0. 98 . 52 . 83 . 93	0. 98 . 52 . 92 . 95	Roswell, N. Mex.: July 1. Sept. 21	0. <b>2</b> 2 . 21	0. 36 . 28	0. 56 . 42	0. 70 . 54	0.71	0. 71 . 67	0. 71 . 67	0. 71 . 89	0. 72 1. 06	0, 72 1, 07	0. 7:
May 17 June 1 June 9 Aug. 21 Oct. 4	1.00 .38	1. 49 . 59 . 86 . 38	2. 10 . 68 1. 15 . 38	2. 32 . 72 1. 26 . 41	2. 34 . 75 1. 30 . 42	2. 62 . 97 1. 32 . 42	2. 62 . 97 1. 32	2. 62 . 97 1. 32	2.62	2. 62 . 97 1. 32	2. 62 . 97 1. 32	Santa Fe, N. Mex.: Sept. 7 Phoenix, Ariz.: July 26 July 25	. 43	. 39	. 83	. 91	. 95	. 96	. 96	. 97	. 76 . 98 . 83	. 98	. 9
alentine, Nebr.: Sept. 3 ioux City, Iowa: May 22 June 26	. 28 . 22 . 53	. 37	. 38	. 40	. 40	.40	. 40 1. 32	. 40 1. 63	1. 72 1. 23	. 40 1. 75	.40	MIDDLE PLATEAU  Modena, Utah:											
Sept. 6	. 35	. 55	. 67	. 74	. 77	. 77	. 77	. 77	. 77	. 77		Santa Fe, N. Mex.:   Sept. 7.   Phoenix, Ariz.:   July 26.   July 25.     Santa Fe, N. Mex.:   Santa Fe, N. Mex.:   Santa Fe, N. Mex.:   Santa Fe, N. Mex.:   Sept. 7.   Santa Fe, N. Mex.:   Santa									1. 01 . 48		
NORTHERN SLOPE Cheyenne, Wyo.: May 22 July 20 Sept. 3	. 50	. 98	1 . 18	. 55 . 89 . 74	1 . 89	. 90	1 . 90	. 58	. 58	. 59	. 59	Pocatello, Idaho: July 31  NORTH PACIFIC COAST REGION	. 37	. 64	. 87	. 94	. 97	1. 03	1. 03	1. 05	1.06	1. 06	1. 1
MIDDLE SLOPE Denver, Colo.: Aug. 2 Aug. 12	. 22		. 58		. 69 1. 10	. 74 1. 20	. 78 1. 32	. 82 1. 34	. 87 1. 35	. 90 1. 35	. 91 1. 35	North Head, Wash.: June 27 Roseburg, Oreg.: June 5	. 18			. 57			- 1		.75		
Cueblo, Colo.:  May 27 Aug. 2. Concordia, Kans.:  Apr. 30-May 1 July 27.	. 22 . 29 . 41 . 13	. 40	. 51	. 60	. 63	. 64	. 64 1. 09	1. 24	1. 59 . 65 1. 37 . 66	. 65 1. 40	1. 41	MIDDLE PACIFIC COAST REGION Redding, Calif.: Apr. 23 Apr. 29	. 29	. 42	. 45	. 46					. 46		
May 8. May 23. June 30-July 1. Vichita Aans.:	. 36 . 24 . 25	. 41 . 32 . 42	. 42 . 50 . 64	. 43 . 73 . 82	. 44 . 90 . 99	. 44 1. 17 1. 00	. 44 1. 43 1. 01	. 44 1. 51 1. 01	. 47 1. 55 1. 01	. 51 1. 62 1. 01	. 53 1. 69 1. 01	SOUTH PACIFIC COAST REGION San Diego, Calif.: Feb. 14	. 23	. 33	. 54	. 61	. 66	. 78	. 79	. 81	. 81	, 81	. 81
Sept. 26 Oklahoma City, Okla.: Feb. 25 May 1	. 42	. 54	. 71	. 74	. 74	. 74	. 74	74	. 55 . 74 1. 04	74	74	Nov. 22	. 26	. 67	. 89	. 90	. 90	. 90	. 90	. 90	. 94	. 94	. 94
bilene, Tex.: Apr. 15-16 May 7 marillo, Tex.:									1. 61 1. 03			July 2- July 22- Aug. 10- Sept. 27- Nov. 2-	. 37 . 27 . 35 . 32 . 29	. 64 . 51 . 60 . 63 . 48	. 96 . 67 1. 01 . 99 . 77	. 97 . 73 1. 25 1. 04 . 96	. 97 . 82 1. 28 1. 07 1. 03	1. 04 . 91 1. 29 1. 08 1. 04	1. 04 1. 00 1. 30 1. 36 1. 24	1. 04 1. 10 1. 30 1. 42 1. 33	1. 04 1. 30 1. 32 1. 45 1. 33	1. 04 1. 38 1. 33 1. 50 1. 33	1. 04 1. 62 1. 36 1. 55 1. 56
Sept. 4  el Rio, Tex.: Apr. 26  May 27-28  June 29	. 30	. 64	.92	. 98 1. 13	. 98 1. 13	. 98 1. 13	. 98 1. 13	. 98 1. 13	2. 51 . 98 1. 13 1. 59	. 98 1. 13	. 98 1. 13	Honolulu, Hawaii: Jan. 16. Mar. 18. Oct. 22. Oct. 28. Oct. 30.	. 23 . 16 . 39 . 31	. 37 . 26 . 69 . 55	. 41 . 45 1. 07 . 83	. 68 . 48 1. 21 . 96	. 70 . 48 1. 32 1. 05	. 70 . 49 1. 38 1. 21	. 71 . 49 1. 83 1. 32	. 79 . 49 2. 41 1. 40	. 84 . 49 2. 56 1. 51	. 84 . 49 2. 59	. 84 . 49 2. 59 1. 63

Note.—The following stations had no excessive precipitation during the year 1936: the lower Lake region, Syracuse, N. Y.; North Dakota section, Moorhead, Minn.; northern slope, Havre, Helena, Kalispell, and Miles City in Montana, Lander, Sheridan and Yellowstone Park in Wyoming, Rapid City, S. Dak, and North Platte, Nebr.; southern plateau, El Paso, Tex., Albuquerque, N. Mex.; middle plateau, Reno, Nev., Grand Junction, Colo.; northern plateau, Baker, Oreg., Boise, Idaho, and Spokane, Walla Walla, and Yakima in Washington; north Pacific coast region, Portland, Oreg., and Seattle and Tatoosh Island, Wash.; middle Pacific coast region, Eureka, Sacramento, and San Francisco in California; southern Pacific coast region, Fresno and Los Angeles in California; and in Alaska, Fairbanks, Juneau, and Nome.

Excessive precipitation data for the year 1931 and 1932 and for 1933 and 1934 appear respectively in the 1933-34 and 1934-35 issues of the Report of the Chief of the Weather Bureau.

# MONTHLY AND ANNUAL EVAPORATION, 1936

The monthly and annual amounts of evaporation during the year 1936 appear in table below. The number of these reports at the present time is small, records appearing from less than half of the States.

The evaporation measurements are all made from cylindrical pans, 4 feet in diameter, 10 inches deep, placed on framework laid on the ground, and exposed as far as possible to full sunshine. A description of equipment and methods of observation appeared in the Monthly Weather Review of December 1916, pages 674 to 677.

Table 15.—Monthly and annual evaporation at class A stations for 1936

Fairhope ALABAMA			1/10/00		annac	evape	orairon 	ai cias: _	s A stai	tions jo	or 1936			
Pairhope   2 21	Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
## ALASKA   S. 80   4.78   3.14   1.35   1.37   1.47   1.48   1.4	ALABAMA Fairhope 1											In.	In.	In.
### Patrianks	ATARKA				7. 52	0. 01	7.04	0.49	5. 61	4.68	3.84	2.38	1.39	51.02
ABIZIONA  Lee's FOTY	Fairbanks						5.80	4 78	2 14	1 25				
Left   Ferry	Matanuska	-				4.86								
Medical Color	ARIZONA													1
Medical Color	Lee's Ferry	1, 89	2. 93	6.47	9 14	11 05	12 70	10 50	71.00	0.00				
University of Arizona Crusson)	Mesa	2.48	2.89	5. 88	8. 35	11. 21	12. 32	12.06						
Yuma (celled)   3.81   4.92   8.75   11.30   12.78   15.71   15.41   14.75   12.26   8.47   5.50   2.90   18.50     CALIFORNIA   1.27   1.28   1.28   1.28   1.28   1.28   1.28   1.28   1.28   1.28   1.28   1.28   1.28   1.28   1.28     Alexando (neer)   2.78   2.60   4.15   5.66   7.52   6.89   7.70   7.68   6.30   4.68   3.39   2.29   64.73     Davis   1.76   1.49   4.15   5.66   7.52   7.77   7.76   7.78   6.30   4.68   3.39   2.29   64.73     Pall River Mills   1.06   1.45   4.18   5.39   7.56   8.29   12.20   10.20   8.61   5.66   2.76   1.76   71.52     Davis   1.26   1.43   3.71   5.29   2.27   10.31   12.48   11.62   8.11   2.8   1.79   2.01     Pall River Mills   1.06   1.45   4.18   5.39   7.56   8.29   12.20   10.26   8.67   5.62   2.70   1.76   71.52     Davis   1.26   1.43   3.71   5.29   2.27   10.31   12.48   11.62   8.11   2.8   2.70   2.70   1.70     Davids (neer)   8.80   1.48   2.84   4.38   0.71   11.46   14.33   12.27   0.32   8.67   5.23   3.60     Taboe   GEORGIA   1.26   1.45   4.90   5.46   5.38   6.21   7.11   6.78   4.87   1.62   8.10     Experiment   3   3.96   4.67   5.10   4.76   6.79   6.44   6.67   6.84   4.94   4.54   4.69   5.68   6.14     Hawah   Hoasea (Upper)   4.01   4.57   4.90   5.40   8.80   6.80   12.20   10.56   6.95     Arrowrook   5.18   5.19   8.10   8.85   11.20   10.55   6.95   3.56     Lifton   7.80   7.70   7	University of Arizona (Tucson)	2.56										2.61	1.40	69. 91
CALIFORNIA  Alvarado (near)  Chaila Vista.  2,78 2,89 4,95 5,68 7,79 7,79 7,08 6,30 4,38 3,50 1,10 1,10 1,10 1,10 1,10 1,10 1,10 1	Yuma (citrus)	3 81		8.75	11.30	13. 78	15. 17	15, 41	14.75	12. 26	8.47			
Alvarado (near)		0.02	4.75	8.06	10.54	13. 20	14. 17	13. 39	12.08	9.86	6.71	5. 14		
Child Vista														
Davis	Alvarado (near)	1. 30					6. 89	7. 76	6, 79	5. 30	3 52	1 60	1 49	59 72
Local   Loca	Davis.	1. 76						7.79	7.68	6. 30	4.58	3.93	2.99	64. 73
Mojave (Backus Rauch)   1.40	Fall River Mills	1.06	1.45	4.18	5.39	7. 56	8. 59					2.76	1. 76	71. 52
Tables 98 1.48 2.84 4.38 9.71 11.46 14.33 12.97 9.32 4.82 1.67 1.30 75.47  GEORGIA  Experiment 3  HAWAII  Hoseae (Upper) 4.01 4.57 4.90 5.40 5.38 6.21 7.11 6.78 4.87 5.02 3.69 5.68 6.51 4.77 Pahala 3.96 4.67 5.16 4.76 6.79 6.44 6.67 6.84 4.94 4.58 4.90 5.68 65.14 4.70 6.79 6.44 6.67 6.84 4.94 4.58 4.90 5.68 65.14 4.70 6.79 6.44 6.67 6.84 4.94 4.58 4.90 5.68 65.14 4.70 6.70 6.84 6.80 6.23 3.02 MRINED AMBRIAN BARRAIN BARRAI	Mojave (Backus Ranch) 2		1, 43	3, 71	5. 26	9. 27			11. 62	8. 51	4.79		. 83	
CEORGIA   CEOR	Tahoe	. 89	1.48	2. 84			11.46	14. 33			4.82			75. 47
Experiment						3. 69	3.97	5. 06	5, 28	3. 64	2.08			
HAWAII														
HAWAII Hoaeae (Upper)	Experiment 3										3. 94	2. 87	1 78	
DAHO	HAWAII					1							2.10	
DAHO	Hoaeae (Upper)	4 01	4 57	4 00	5 40	E 20	0.01			i				
Aberdeen	Pahala	3. 96												
Arrowrock Lifton Milner Dam General College Milner Dam General College Milner Dam General College Missouri Lakeside Missouri Lakeside Montana Agriculture College (Bozeman) Malta Sherburne Lake Missouri Lakeside Missouri Lakeside Missouri Lakeside Montana Agriculture College (Bozeman) Nelsaska  Bridgeport 4 Lincoln Nevada  Bridgeport 4 Lincoln Nevada  Boulder City A.56 A.73 A.56 A.73 A.764 B.785 B.78	IDAHO								0,01	1,01	7, 02	4.09	5. 68	05, 14
Milner Dam 6.01 7.66 6.72 8.95 7.72 5.91 3.56  Ames 10WA 5.19 8.10 8.55 14.74 10.85 5.13 2.95  Tribune Kansas 9.03 12.46 14.96 12.45 8.98  Lakeside MISSOURI 4.59 5.42 8.24 9.87 11.09 10.35 5.54 3.22 2.57 1.00  MONTANA Agriculture College (Bozeman) 7.88 7.85 11.05 9.36 5.55 2.59 8.65 9.10 10.47 8.30 10.70 9.36 6.44  Walter 10.91 10.06 13.03 8.94 6.80 4.04  Valier 10.91 10.06 13.03 8.94 6.80 4.04  NEBRASKA Bridgeport 4 1.0 10.74 18.93 12.94 7.66 5.08  NEVADA 8.08 7.64 10.74 16.93 12.94 7.66 5.08  Boulder City 4.56 4.73 9.46 13.24 17.82 20.04 18.37 15.62 13.98 8.06 5.93 3.53 135.34  NEW MEXICO Agriculture College 8.05 9.07 10.85 13.31 15.33 12.60 10.43 7.29 5.63 3.65 2.56 99.57 Elephant Butte College 9.56 9.11 12.10 14.07 17.41 14.50 14.22 9.66 8.01 4.64 3.60 115.06 Navajo 7.89 6.18 3.88 1.89 8.06 1.83 3.89 1.80 1.80 11.50 Navajo 7.89 6.18 3.88 1.80 1.80 1.80 11.50 Navajo 7.89 6.18 3.88 1.80 1.80 1.80 11.50 Navajo 7.89 6.18 3.88 1.80 1.80 1.80 1.80 1.80 11.50 Navajo 7.89 6.18 3.88 1.80 1.80 1.80 1.80 11.50 Navajo 7.89 6.18 3.88 1.80 1.80 11.50 Navajo 7.89 6.18 3.88 1.80 1.80 11.50 Navajo 7.89 6.18 3.88 1.80 11.50 11.50 Navajo 7.89 6.18 3.88 1.80 11.50 11.50 Navajo 7.89 6.18 3.80 1.80 1.80 1.80 11.50 11.50 Navajo 7.89 6.18 3.88 1.80 1.80 1.80 1.80 11.50 11.50 Navajo 7.89 6.18 3.80 1.80 1.80 1.80 1.80 1.80 11.50 11.50 Navajo 7.89 6.18 3.80 1.80 1.80 1.80 1.80 1.80 1.80 1.80 1	Arrowrock							8. 71	8, 05	5, 85	3 62			
Milber Dam					4, 59					6.95				
Ames	Milner Dam				6. 01				7.72					
Tribune	A mos													
MISSOURI					5. 19	8, 10	8. 55	14.74	10.85	5. 13	2.95			~~~~~~
Lakeside   MISSOURI     4.59   5.42   8.24   9.87   11.09   10.35   5.54   3.22   2.57   1.00	Tribune										Ì			
Lakeside						9. 03	12. 46	14. 96	12. 45	8, 98				
MONTANA Agriculture College (Bozeman) Malta. Sherburne Lake NEBRASKA  Bridgeport 4 Lincoln NEVADA  Boulder City Lamoille NEW MEXICO  Agriculture College.  3.59 5.26 9.07 10.85 13.31 15.33 12.60 10.47 11.29 12.33 10.74 11.45 14.50 14.22 9.66 8.01 4.64 3.65 11.05 9.36 5.55 2.59 4.04 4.04	Lakeside			4.50	E 40	0.04				-				
Agriculture College (Bozeman) Malta. Sherburne Lake. Sherburne Lake. Valier.  NEBRASKA  Bridgeport 4 Lincoln.  NEVADA  Boulder City. Lamoille.  Agriculture College. 3.59 5.26 9.07 10.85 13.24 17.82 8.08 7.84 10.74 10.74 11.29 12.35 10.47 11.29 12.35 10.47 11.29 12.33 10.47 11.45 10.74 11.45 10.75 10				1.09	0.42	8. 24	9.87	11.09	10. 35	5. 54	3. 22	2. 57	1.00	
Sherburne Lake     10.91   10.06   13.03   8.94   6.80   4.04														
Valier									9. 36	5. 55	2, 59			
NEBRASKA  Bridgeport 4 Lincoln  NEVADA  Boulder City  A.56  A.73  Boulder City  A.56  Bridgeport 4 Lincoln  NEVADA  Boulder City  Bridgeport 4 Lincoln  NEW MEXICO  Agriculture College  Bridgeport 4 Lincoln  NEW MEXICO  Agriculture College  Bridgeport 4 Lincoln  NEW MEXICO  Agriculture College  Bridgeport 4 Lincoln  Ar. 6.93  Bridgeport 4 Lincoln  Bridgep	TT II										4.04			
NEBRASKA Bridgeport 4 Lincoln NEVADA  NEVADA  Boulder City 4. 56 4. 73 9. 46 13. 24 17. 82 20. 04 8. 08 7. 34 8. 64 8. 01 6. 63 12. 94 7. 66 5. 08  NEW MEXICO  Agriculture College 3. 59 5. 26 9. 07 10. 85 13. 31 15. 33 12. 60 10. 43 7. 29 5. 63 3. 65 2. 56 99. 57 El Vado Dam 6 Navajo 7 Nava	vaner													
NEVADA   Solution   Nevada	NEBRASKA	}			1									
NEVADA   Solution   Nevada	Bridgeport 4				1	6.03	0.05	11 00	0.10					
NEVADA   Boulder City	Lincoln										5. 08			
Lamoille       3.50       4.73       3.40       15.24       17.82       20.04       18.37       15.62       13.98       8.06       5.93       3.53       135.34         NEW MEXICO       3.59       5.26       9.07       10.85       13.31       15.33       12.60       10.43       7.29       5.63       3.65       2.56       99.57         Elephant Butte Dam       2.99       5.65       9.11       12.10       14.07       17.41       14.50       14.22       9.66       8.01       4.64       3.43         El Vado Dam 6       8.90       7.89       6.18       3.68       3.68       115.96         Navajo 7       8.90       7.89       6.18       3.68       3.64       115.96         Portales 8       2.35       8.48       10.47       11.29       12.33       10.74       11.45       6.92       5.18       3.64         Therma       8.22       10.32       8.01       6.79       5.92       5.18       3.64	NEVADA													
Agriculture College		4, 56	4 73	0 48	13 94	17 00	20.04	10.05			ŀ			
NEW MEXICO   Agriculture College	Lamoille				10. 24							5. 93	3. 53	135. 34
Conchas Dam 5     6.20     3.07     40.63     15.31     15.33     12.60     10.43     7.29     5.63     3.65     2.56     99.57       Elephant Butte Dam     2.99     5.65     9.11     12.10     14.07     17.41     14.50     14.22     9.66     8.01     4.64     3.43       El Vado Dam 6     8.90     7.89     6.18     3.68     4.64     3.60     115.96       Navajo 7     9.29     7.04     6.18     3.64     115.96       Portales 8     2.35     8.48     10.47     11.29     12.33     10.74     11.45     6.92     5.18     3.64       Therma     8.22     10.32     8.01     6.79     5.97     5.97     3.85	NEW MEXICO									0.01	0.70			
Conchas Dam 5     6.20     3.07     40.63     15.31     15.33     12.60     10.43     7.29     5.63     3.65     2.56     99.57       Elephant Butte Dam     2.99     5.65     9.11     12.10     14.07     17.41     14.50     14.22     9.66     8.01     4.64     3.43       El Vado Dam 6     8.90     7.89     6.18     3.68     4.64     3.60     115.96       Navajo 7     9.29     7.04     6.18     3.64     115.96       Portales 8     2.35     8.48     10.47     11.29     12.33     10.74     11.45     6.92     5.18     3.64       Therma     8.22     10.32     8.01     6.79     5.97     5.97     3.85	Agriculture College	3, 59	5 26	0.07	10.95	19.01	15.00							
El Vado Dam 6	Conchas Dam 5					13, 31	15, 33	12. 60	10. 43	7. 29	5. 63	3. 65		99. 57
Navajo 7.	El Vado Dam 6	2.99	5. 65	9. 11	12. 10	14. 07	17. 41		14. 22			4. 64		115. 96
Therma 8. 48   10. 47   11. 29   12. 33   10. 74   11. 45   6. 92   5. 18   3. 64     8. 22   10. 32   8. 01   6. 79   5. 97   3. 85   3. 64	Navajo 7 Portales 8	2.25		0.40	10 4									
	Therma	2.30		8. 48	10. 47				11. 45	6. 92	5. 18	3. 64		
	See footnotes at end of table.						20,02	0.01	0.79	0. 27	3. 85 1_			

Table 15.—Monthly and annual evaporation at class A stations for 1936—Continued

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annua
NEW YORK AlbanyIthaca	In.	In.	In.	In.	In. 5. 75 5. 22	In. 6. 11 6. 40	In. 7.44 7.54	In. 5. 64 6. 16	In. 3. 26 4. 62	In. 2. 13 3. 22	In.	In.	In.
NORTH CAROLINA					0. 22	0. 10	1.01	0.10	4.02	3, 22			
Chapel HillOHIO	0, 94		3, 02	4. 47	6. 97	6. 12	6. 13	5. 18	4. 07	2. 92	1.88	1.05	
Ohio State University				2. 21	4, 56 5, 06	5. 74 6. 21	6. 48 7. 09	4. 67 5. 09	3. 59 4. 12	1. 42 2. 21			
OREGON Corvallis Fish Lake				3. 48	3. 96	4. 73	6. 83	6. 62	4. 09				
warmspring Reservoir				6. 24	8. 94	9. 10	6. 30 12. 26	6. 32 11. 27	3. 61 6. 52	2. 74 4. 45			
PENNSYLVANIA Wallenpaupack Dam					7. 56	6. 97	8. 70	6. 33	4. 30	2. 65			
PUERTO RICO San Juan	5. 66	7. 19	8, 41	9. 47	6. 31	7. 72	8. 44	6. 91	6. 02	5, 54	5, 64	5, 59	82, 9
TEXAS Austin Dilley	2. 30 2. 90	2. 64 3. 54	5. 60 5. 87	6. 45 7. 89	5. 53 6. 72	8. 93 9. 15	7. 83 7. 55	8. 09 9. 28	5. 67 5. 28	3. 80 4. 88	2, 44 2, 73	1. 96 2. 28	61. 2
UTAH Myton Piute Dam					8. 15 11. 46	7. 99 11. 05	7. 31 9. 08	6. 84 9. 46	5. 44 7. 93				
Utah Lake			3. 44	6. 23	10.91	9. 99	9. 81	9.39	7. 49	4.01			
St. Croix	6. 60	6. 22	6. 27	6. 76	6. 23	6. 07	6. 29	6. 51	6. 29	5. 55	5. 04	5. 49	73, 3
Kachess Lake Walla Walla			3. 24	6. 02	8. 09	7. 26	11. 00	6. 61 10. 39	5. 15	1. 81 3. 75			
WEST VIRGINIA													
Clarksburg				3. 29	5. 73	6. 85	6. 50	4.99	3. 81	1.81			

Observations taken at Silverhill prior to April 1934.
Station opened May 1, 1936.
Station opened Sept. 28, 1936.
Beeame class A station May 1936.
Station opened Nov. 25, 1936.
Station opened June 15, 1936.
Station opened July 14, 1936.
Observations taken at Santa Fe, prior to March 1934.

## MONTHLY AND ANNUAL METEOROLOGICAL SUMMARIES FOR 183 STATIONS FOR 1936

#### EXPLANATION OF THE TABLES

For a detailed account of the method of reducing the observed barometric pressures the reader is referred to the report on the barometry of the United States, Canada, and the West Indies, to be found in the Annual Report of the Chief of the Weather Bureau, 1900-1901, volume II.

Pressure.—Two mercurial barometers of the well-known Fortin cistern pattern, or a modified form thereof, are furnished each station. One of these, the station barometer, is used in making all regular observations; the other, the extra, is held in reserve for use in case of emergency, except that monthly comparative readings are made on the two instruments for purpose of check upon the deterioration of either instrument.

Each barometer, before issue to station, is compared with the substandard at Washington, and a certificateof-correction card furnished showing the several constant corrections that must be applied to the readings of the instrument in order to derive therefrom the actual pressure of the air in standard units at a specified evelation. Each observation as made, therefore, is corrected by the application of the following:

(1) Correction of scale error, capillarity, etc.

(2) Correction to standard gravity, comprising both latitude and altitude terms.

(3) Correction for removal—a correction applied if any change has been made in the elevation of the barometer, to reduce the readings to the elevation adopted in 1900. (However, at a very few stations the elevation of 1900, or the original elevation of a station opened since 1900, has been replaced as the "station elevation" by an actual elevation since established.)

Corrections 1, 2, and 3 are constant for any one station and are combined in a single sum.

(4) Correction for the temperature of the scale and mercurial column.

In the pressure columns of this part the values presented are those at the station elevations of the barometer cisterns, which are at various heights above the ground level, but usually less than 100 feet. On the other hand, daily weather maps and most other pressure data issued by the Bureau indicate sea-level pressures.

The monthly mean pressures given in the summary are deducted from the corrected observations of pressure at 8 a. m. and 8 p. m., seventy-fifth meridian time, by taking the mean thereof and applying thereto a correction to reduce to the mean of 24-hourly observations. At several Alaska stations and at Honolulu the mean is printed uncorrected. The extremes are determined, wherever possible, from the barograph trace.

Temperature.—The temperature of the air at 8 a. m. and 8 p. m., seventy-fifth meridian time, and at noon, local time, is obtained by the use of the whirled dry-bulb thermometer. The latter is a part of the whirled psychrometer and is mounted in the thermometer shelter adopted in 1885. The means of these observations are given in the columns headed 8 a. m., 8 p. m., and noon, respectively.

The maximum temperature is obtained by the use of the Negretti and Zambra mercurial thermometer, having a constriction in the bore of the tube below the scale. The minimum temperature is obtained by the use of the ordinary Rutherford alcohol minimum thermometer. Both instruments are read and the values recorded twice daily, at 8 a. m., and 8 p. m., seventy-fifth meridian time, and are set twice daily at 8 a. m. and 8 p. m. The extremes given in the summaries are for the civil day, midnight to midnight, normal standard time. The monthly means have been obtained by dividing the sum of the mean maximum and mean minimum temperatures by 2.

Moisture.—The monthly means of the dew point, relative humidity, and vapor pressure are given as computed directly from the original daily observations.

The rain gages used at the regular Weather Bureau stations have a circular catchment area of about 8 inches diameter, and the snow, hail, or sleet caught within them is melted and measured as water. The rain gage proper is set within an enclosing cylinder, which serves as an overflow attachment in the case of heavy rains and as a snow gage in the winter season.

The sum total of the depth of rain and melted snow is measured to within 0.01 inch at 8 a. m. and 8 p. m., seventy-fifth meridian time, daily. The total precipitation is determined from the amounts recorded daily, midnight to midnight, standard of time in local use.

The snow caught and retained in the gage is melted and measured as water. No correction is applied for snow that is lost out of the gage by the eddying action of the wind; consequently in some cases the record is less than would be given if the observer had measured cylinders of snow cut from the spots representing the average snowfall on the ground. When it is known that the catch of the snow gage is markedly at fault, an independent ground measurement is made and used as the official record. The loss of both rain and snow

caused by high winds, from gages exposed on the roofs of tall buildings in which some of the regular stations of the Weather Bureau are located is undoubtedly larger than is the case at the cooperative stations where the gages are located in the open country and near the ground, but this loss does not appear to be sufficient to make the monthly sums derived from these two classes of stations wholly inconsistent with each other.

By the maximum precipitation in 24 hours is meant the greatest measurement for any 24 consecutive hours; it does not refer to the rate of rainfall for 24 hours, as deduced from short, heavy showers.

The number of days with precipitation amounting to 0.01 and 0.04 inch, respectively, relates to the rainfall from midnight to midnight, standard of time in local use. No record is made of deposits of dew.

The total snowfall column presents the depth as unmelted snow. The month in this instance runs from the last observation of the preceding month to the last of the month itself.

The cloudiness recorded in the summaries is derived from personal observations. The proportion of sky covered by clouds is estimated by the observer at 8 a. m., 8 p. m., and noon, on a scale of 0-10. These observations cannot be combined into a daily mean in the present state of our knowledge of the diurnal variations in cloudiness, and are therefore given separately. In order, however, to obtain a general record of the sunshine as affecting the growth of plants, the observer keeps some memoranda of the cloudiness, sufficient to enable him at the end of the day to determine the average cloudiness on the scale given above from sunrise to sunset; the resulting average for each month is given in the column of "daylight" cloudiness.

The number of days that were clear, as given under "Number of days, etc.", includes those on which the daylight cloudiness was 0, 1, 2, or 3 tenths; the days partly cloudy were those on which the daylight cloudiness was 4, 5, 6, or 7 tenths; the cloudy days were those having 8, 9, or 10 tenths of cloudiness during daylight.

Wind.—The direction and velocity of the wind are recorded at nearly all the stations on what is known as the "triple register." On these instruments the direction of the wind is recorded every minute. The maximum velocities given are for 5-minute periods.

Beginning with January 1, 1932, the Weather Bureau began the practice of applying corrections to all records of wind velocity obtained from rotating cup anemometers. Correction tables for both three-cup and four-cup anemometers have been made available to stations and hence values furnished to the public are on a comparable basis, regardless of the particular instrument employed.

Number of days.—The number of days with hail includes all of those on which at least a trace of hail fell. The number of days with dense fog includes all of those on which fog was dense enough to obscure objects 1,000 feet distant. Fog of less density is recorded as light.

Time.—8 a. m. and 8 p. m., in this part, indicate seventy-fifth meridian time, except in a few instances, where footnotes specify otherwise.

References and abbreviations.—H, official elevation of station=height of the ground above sea level at station;  $H_b$ =height of barometer cistern above mean sea level on January 1, 1900, or when the station was established, if it was established since January 1, 1900, that being the elevation to which all previous readings have been reduced. It is designated as the "station, or adopted elevation." At almost all stations where a change has been made in the elevation of the barometer since January 1, 1900, a corresponding correction has been applied to the observed reading, thereby reducing all values to the "station, or adopted elevation." The actual elevation and the station, or adopted elevation, are identical, except at stations where the barometer has been moved since January 1, 1900;  $h_t$ =height of thermometer above ground;  $h_r$ =height of rain gage (top) above ground;  $h_a$ =height of anemometer (cups) above ground.

ANNUAL METEOROLOGICAL SUMMARIES, 1936

Table 16.—Annual meteorological summaries for the year ended Dec. 31, 1936

ABILENE, TEX.

									$[\phi :$	=32°2	27′ N.	; λ=	=99°	44′	w.]												
	]	Pressu	re			r.	Гетр	eratui	re											Moist	ure						
		Extr	remes			M	ean			Ext	remes	8	Dev			elati mid		Vap	or pre	essure	Pre	ecipit	ation		Clou	dine	SS
Month	Monthly,mean	Maximum	Minimum	8а. т.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
January February March March April May June July August September October November December	28. 16 28. 09 28. 19 28. 15 28. 11 28. 16 28. 17 28. 26 28. 26 28. 40 28. 26	28, 30 28, 38 28, 35 28, 36 28, 64 28, 73 28, 57	27. 62 27. 63 27. 76 27. 77 27. 72 27. 97 27. 95 27. 83 27. 95 27. 91 27. 77	35. 0 33. 4 49. 8 53. 5 65. 0 72. 7 73. 3 74. 1 68. 9 53. 1 43. 2 42. 6 55. 4	56. 6	49. 9 67. 9 71. 6 78. 0 91. 3 90. 1 93. 6 78. 7 64. 2 53. 2 52. 5	60. 4 74. 5 77. 9 84. 3 95. 6 96. 5 99. 8 85. 7 72. 8 61. 5 60. 2	29. 4 47. 8 50. 2 62. 9 71. 1 71. 7 73. 7 67. 6 51. 4 39. 7 39. 7	44. 9 61. 2 64. 0 73. 6 83. 4 84. 1 86. 8	85 86 95 93 105 108 110 100 91 82 73	9 9 38 28 54 63 65 60 46 35 26 29	39 59 62 66 60 63 46 36 35	23 30 38 58 60 62 57 62 49 36 36	36 56	% 64 64 52 61 82 69 78 62 83 80 77 76 71	28	% 45 35 28 30 51 33 40 28 59 62 57 57 44	In. 0. 125 . 145 . 186 . 273 . 510 . 553 . 638 . 532 . 601 . 324 . 231 . 215 . 361	. 144 . 187 . 256 . 490 . 534 . 559 . 476 . 582 . 361 . 230 . 229	. 184 . 239 . 461 . 471 . 528 . 438 . 551 . 367 . 241 . 229	. 94	In. 0.33	In. 3. 8 7 3. 8 7 11 . 00 . 00 00 . 00 11 . 00 14 . 00 14 . 00 15 . 00 16 . 00 17 . 00 18 . 00 19 . 00 10 . 00	5. 6 4. 8 4. 3 6. 5 3. 0 2. 4 1. 5 5. 7 4. 3 4. 9 5. 5	5. 0 3. 8 3. 1 6. 0 2. 4 3. 5 2. 9 6. 2 3. 2 5. 0 4. 3	3. 7 4. 8 2. 7 5. 3 2. 4 3. 2 1. 8 5. 2 5. 0 3. 4	5. 1 4. 6 3. 3 5. 6 2. 6 3. 1 2. 0 5. 6 3. 6 5. 0 4. 3
									[φ=		BAN 9' N.;				V.]												
January February March April May June July August September October November December Year 2	29. 99 29. 80 29. 90 29. 90 29. 80 29. 77 29. 90 30. 00 30. 00 29. 96	30. 43 30. 32 30. 32 30. 40 30. 40 30. 57 30. 21 30. 21 30. 37 30. 51 30. 59 30. 68	29. 21 28. 97 29. 28 29. 44 29. 39 29. 44 29. 59 29. 49 29. 00 29. 25 29. 19	20. 2 13. 2 37. 2 41. 9 57. 1 65. 0 68. 5 66. 3 58. 5 48. 0 33. 2 29. 5	25, 4 22, 8 44, 7 47, 8 67, 4 73, 9 80, 4 76, 2 68, 0 56, 9 39, 3 33, 9 53, 1	24. 7 21. 7 44. 4 46. 8 64. 6 71. 4 76. 5 74. 0 65. 0 53. 4 38. 0 33. 4	30. 1 28. 1 51. 4 52. 7 73. 4 78. 9 86. 2 81. 6 72. 7 61. 2 45. 3 40. 0 58. 5	17. 0 8. 5 33. 2 37. 4 50. 8 59. 5 62. 6 61. 3 54. 2 43. 3 29. 0 24. 1 40. 1	23. 6 18. 3 42. 3 45. 0 62. 1 69. 2 74. 4 71. 4 63. 4 52. 2 37. 2 32. 0 49. 3	45 46 73 78 91 89 103 97 87 78 72 56 103	-6 -12 6 28 34 49 51 53 37 22 8 4 -12	35 46 54 58 58 53 43 25 23	10 34 37 46 52 55 58 54 42 25 23	42 25 23 39	67 68 71 76 83 82 70 75	57 69 67 49 49 43 55 64 59 56 64 58	67 66 66 57 59 52 62 72 66 59	0. 095 . 067 . 200 . 216 . 334 . 425 . 498 . 491 . 419 . 295 . 147 . 134	0. 099 . 076 . 222 . 229 . 343 . 411 . 454 . 487 . 453 . 292 . 153 . 134 . 279	0. 100 . 086 . 212 . 221 . 364 . 450 . 477 . 514 . 457 . 296 . 158 . 134	4. 59 1. 92 5. 39 3. 12 4. 20 1. 86 1. 94 6. 54 1. 34 3. 99 2. 16 2. 90	. 61 1. 54 . 76 1. 55 . 95 . 66 2. 27 . 35 1. 61 1. 66 . 87	T .0 .0 .0 .0 .0 T		6. 1	5. 4 4. 8 7. 0 6. 9 4. 1 5. 2 4. 5 5. 4 4. 4 4. 0 5. 1 6. 1 5. 2	6. 3 5. 5 6. 7 7. 5 5. 6 4. 5 4. 8 5. 5 6. 6 6. 6 5. 9
											N.;																
January     2       February     2       March     2       April     2       June     2       July     2       August     2       September     2       October     2       November     2       December     2       Year     2	5. 03 2 5. 02 2 5. 04 2 5. 10 2 5. 11 2 5. 08 2 5. 11 2 5. 21 2 5. 07 2	5. 32 2 5. 29 2 5. 26 2 5. 25 2 5. 30 2 5. 29 2 5. 34 2 5. 46 2 5. 37 2	4. 72 4. 59 4. 72 4. 86 4. 89 4. 72 4. 79 4. 70 4. 59	29. 7 33. 9 40. 8 51. 6 60. 2 64. 3 62. 9 55. 6 43. 9 29. 5 24. 8	47. 7 57. 7 66. 2 75. 9 85. 4 86. 3 85. 9 74. 6 64. 1 52. 5 44. 2	47. 2 57. 2 66. 3 74. 6 86. 2 83. 9 83. 7 72. 6 61. 7 46. 5 39. 0	54. 3 63. 9 72. 5 81. 1 91. 7 91. 8 91. 3 79. 3 69. 5 58. 5 49. 6	30. 3 38. 4 48. 9 56. 9 62. 3 61. 4 53. 2 41. 0 25. 4 20. 7	77. 0 76. 4 66. 2 55. 2 42. 0 35. 2	64 66 73 85 90 100 99 92 80 71 60	13 16 18 37 45 55 55 35 34 17 11		19 24 36 39 50 50 48 37 22 25	20 18 21 33 35 48 47 37 22 23	71 57 56 64 51 66 76 76 65 81	36 22 22 22 26 20 29 30 41 43 41 43 44 47 47 48	35 24 21 25 20 34 33 45 43 36	. 119 . 109 . 146 . 243 . 274 . 382 . 375 . 336 . 219 . 106 . 110	. 103 . 132 . 222 . 252 . 360 . 365 . 344 . 225 . 117 . 137	. 112 . 101 . 118 . 192 . 224 . 351 . 348 . 333 . 225 . 114 . 126	0. 55 . 12 . 11 . 09 . 27 . 43 . 67 . 62 2. 05 . 17 T . 13	0. 31 .08 .07 .07 .09 .29 .35 .46 1. 23 .10 .T .11	6.8 .3 .1 .7 T .0 .0 .0 T .0 .0 1.5	3. 2 5. 0 2. 1 3. 6 3. 5 3. 7 3. 6 2. 2 2. 5	3.8 4.0 4.7 2.0 1.5 2.2 4.2 3.6 2.2 4.1	6. 3 4. 2 3. 5 1. 9 2. 9	4. 6 5. 3 3. 8 4. 4 5. 6 2. 7 3. 5 3. 7 4. 2 3. 9 2. 1 4. 0
											ENA, Ν.; λ				.]						'						
February 25 March 26 April 22 May 25 May 25 June 25 July 25 September 25 October 25 November 29 December 29	9. 19 29 9. 34 29 9. 36 29 9. 29 29 9. 30 29 9. 35 29	76 28 77 28 78 28 79 28 70	3. 29 3. 49 2. 5 3. 85 3. 85 3. 85 3. 85 3. 85 61 5. 61 5. 62 6. 63 6. 62 6. 62 6. 62 6. 63 6. 62 6. 63 6. 62 6. 63 6. 64 6. 64	5, 3 27, 0 32, 9 52, 6 88, 0 88, 1 53, 2 66, 1 60, 8 49, 1 37, 3	15. 2 33. 2 389. 8 58. 0 64. 9 77. 5 71. 5 65. 4 19. 1 33. 3	12. 8 30. 2 35. 1 55. 2 60. 4 72. 7 66. 4 60. 3 45. 2 30. 7	20. 3 37. 1 43. 3 65. 6 68. 8 81. 2 74. 9 68. 3 52. 4 37. 9 385. 3	4 23. 3 28. 4 43. 8 48. 9 59. 0 56. 6 50. 4 36. 6 24. 4	65. 8 59. 4 44. 5 31. 2 29. 1	52 75 91 88 104 93 93 76 63 53	-14 -7 10 32 39 46 47 32 20 9 6	2 23 28 43 48 56 56 56 52 36 24 23	6 23 29 43 48 56 56 54 37 23 25	5 8 24 8 28 8 44 7 57 6 56 7 53 8 88 8 24 8	84 6 82 6 80 6 71 6 66 5 78 6 83 6 83 6 83 6 83 6	655 66 7 666 7 667 660 5 660 5 677 7 677 7 677 7 677 7 677 7	59	053 126 157 288 336 453 453 453 402 227 138 132	. 126 . 167 . 289 . 341 . 463 . 451 . 431 . 236 . 132 . 142	. 060 . 131 . 158 . 301 . 359 . 479 . 463 . 425 . 248 . 136	1. 99 2. 00 1. 46 1. 91 2. 69 1. 33 1. 02 4. 74 3. 59 33. 2 1. 14 1. 67	. 36	27. 2 10. 3 13. 0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0	6. 6 6. 6 6. 6 4. 8 3. 6 2. 4 5. 6 5. 9 6. 4 8. 3 7. 7	6. 1 6. 9 4. 8 3. 9 2. 7 4. 9 6. 0 6. 5 7. 4 7. 3	6. 9 6. 4 4. 1 4. 4 2. 3 4. 3 5. 0 5. 7 7. 4 6. 8	8.0 5.6 6.6 6.7 4.7 4.1 2.8 5.3 5.7 6.3 7.7

<sup>1</sup> Observations taken at airport.

 $ABILENE, \, TEX. \\ [H=1,726 \, ft.; \, H_b=1,738 \, ft.; \, h_t=10 \, ft.; \, h_r=3 \, ft.; \, h_a=56 \, ft.]$ 

															,		-, 4		]										
						7	Wind	l 												N	Vuml	oer (	of da	ys					
		Bys	elf-re	gister		Nu	mbe	rof	wind	s, 8 a	. m.	and	8 p.	m.				Pre itat		Sr	now		F	og	mı	axi- im	ure 32°	4-1	lec-
Month	Average hourly v locity Prevailing directic maximum velocit. Direction at time maximum velocit. Days with 32 mill north North North Southeast Southwest West Northwest Calm															Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	T or more	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperature or below	Thunderstorm	Aurora
February March	Mi. 10. 0 11. 4 10. 9 12. 0 9. 0 10. 0 9. 5 8. 8 9. 6 9. 0 7. 8 9. 7	S. S. S. S. S.	Mi. 25 33 31 35 30 25 32 34 27 27 24 25	S. W. S. S.E. S.	0 2 0 2 0 0 1 1 1 0 0	13 16 11 10 6 2 2 1 7 14 16 10	3 2 2 2 2 4 4 4 4 0 5 1 1 0 0	6 5 2 7	6 3 6 14 18 20 16 19 10 14 9	15 27 25 24 13 22 29 36 23 20 13 27	10 2 7 2 3 2 2 0 1 1 2 5 2	0 5	1 4 3 2 0 3 1 5 5	1 1 0 0 1 1 1 0 2 0 0 0 3 0	15 8 14 20 9 20 19 23 10 18 12 16	7 14 9 3 12 7 9 6 8 3 9 5	7 8 7	2 2 3 6 10 1 5 1 9 5 4 7	1 2 6	2 0 0	2 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 1 0 0 0	0 1 0 0 1 0 0 0 3 3 3 3	0 0 0 0 0 0 0	1 2 0 0 0 0 0 0	0 0 0 5 6 27 27 31 13 2 0	20 0 2 0 0 0 0 0 0 0 4	0 2 3 6 6 2 8 4 3 0 0	0
Year	9.8	S.	35	S.	6	108	27	51	142	274	38	46	37	9	184	92	90	55	43	4	2	1	14	2	3	111	48	35	0

#### ALBANY, N. Y.

 $[H=19 \text{ ft.; } H_b=97 \text{ ft.; } h_t=97 \text{ ft.; } h_r=88 \text{ ft.; } h_a=112 \text{ ft.]}$ 

January February March April May June July August September October November December	7. 6 8. 4 8. 1 8. 0 6. 8 6. 7 7. 8 7. 5 8. 2 7. 8		26 30 31 21 24 24 25 24 27 26 29	SE. SW. S. NW. S. SW. SE.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	6 5 14 16 13 19 11 6 17	9 8 6 4 3 3 8 6 3 0 4 8	4 4 5 2 2 1 1 1 1 1 1 2	0 1 3 2 0 2 2 2 2 2 2 2 1 3	8 19 20	7 13 5 4 7 6 5 7 7 9 5 9	3 19 2 9 2 12 5 17 8 4 4 2 9 7 2 0 5 4 7 6 16 1 11	0 0 0 0 0 0 0 0 0	9 10 8 5 9 8 9 12 11 13 5 8	8 8 5 15 14 21 11 9 5 7	15 11 15 20 7 8 1 8 10 13 18 17	14 10 18 1. 17 10	7 0 3 1 5 12	4 4 0 0 0 0	0 0 0 1 1 1 1 0 0 0 0 0	4 0 13 7 7 6 12 12 16 12 4 9	1 0 1 0 1 1 0 0 2 1 0	15 20 3 0 0 0 0 0 0 0 6 6	0 0 0 0 2 0 8 4 0 0 0	27 27 10 7 0 0 0 0 0 4 20 25	0 0 1 2 7 3 8 5 4 0 0	0 0 0 0 0 0 0 1 0 0 0 0
Year	7.7	S.	31	S.	0	140	62	25	20	229	84	46 125	1	107	116	143	151 109	76	38	2	102	8	50	14	120	30	1

#### ALBUQUERQUE, N. MEX.3

 $[H=5,101 \text{ ft.}; \ H_b=4,972 \text{ ft.}; \ h_t=5 \text{ ft.}; \ h_r=15 \text{ ft.}; \ h_a=39 \text{ ft.}]$ 

#### ALPENA, MICH.

[H=587 ft.;  $H_b=609$  ft.;  $h_t=13$  ft.;  $h_r=4$  ft.;  $h_a=89$  ft.]

February March April May June July August September October November	10. 6 12. 2 11. 9 12. 0 11. 2 9. 9 9. 0 10. 3 9. 8 11. 0	NW. NW. NW. NW. NW. NW.	34 38 34 31 37 26 29 34 28 37 35	SE. NW. SE. NW. NW. NW. SE. NW. NW.	1 5 2 0 2 0 0 1 0 2 1	1 0 3 6 4 11 3 2 6 2 3	2 2 1 4 1 3 4 4 2 5 2	2 8 4 5 5 5 2 13 9 2 3	7 2 15 11 12 9 9 6 8 3	7 2 7 4 6 8 5 7 6 11 7	11 10 5 4 10 2 3 5 7 11 12	19 9 3 2 5 10 10 9	18 23 21 17 24 15 13 14 24	0 0 1 0 2 0 0 1	1 11 7 5 13 16 20 10 9 6 2		20 14 15 15 10 5 2 10 11 11 18	18 12 12 15 12 6 4 13 12 13 14	11 6 11 9 5 3 8 9 10 4	26 19 9 13 0 0 0 0 0 5 19	17 12 7 10 0 0 0 0 0 0 0 9 8	0 0 0 0 1 0 1 0 0 0	0 0 3 3 4 1 0 5 6 4 3 6	0 0 3 1 2 2 0 2 0	20 27 7 3 0 0 0 0 0 0	0 0 0 0 2 0 6 4 1	30 29 25 17 1 0 0 0 1 9 24	0 0 1 0 7 3 4 5 3 3	0 0 0 0 0 0 0 1 0 2 1
	11.9		34	SE.	3	0	4	2	10	14		11	12	0	4	5	22	13	8	16	8	ŏ	6	3	13	ő	28	ő	0
Year	11.0	NW.	38	SE.	17	41	34	60	92	84	89	109	218	5	104	109	153	144	95	107	63	2	35	15	79	13	164	26	4

<sup>&</sup>lt;sup>1</sup> Occurred in vicinity.

<sup>&</sup>lt;sup>2</sup> Observations taken at airport.

Table 16.—Annual meteorological summaries for the year ended Dec. 31, 1936—Continued

AMARILLO, TEX.

	1			1					[φ=	=35°1	3' N.;	λ=	101°	50′	W.]												
	F	Pressu	re			7	Гетре	eratui	re											Moist	ure						
		Extr	remes			M	ean			Ext	remes		Dev poir			elati mid		Vap	or pre	ssure	Pre	cipita	tion		Clou	dine	ss
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
January February March April May June July August September October November December	26. 15 26. 27 26. 28 26. 25 26. 32 26. 32 26. 29 26. 34 26. 45 26. 28	26. 58 26. 56 26. 62 26. 53 26. 55 26. 55 26. 54 26. 71 26. 74 26. 58	25. 60 25. 65 25. 84 25. 80 25. 82 26. 13 26. 12 25. 99 26. 02 25. 90 25. 80	28. 4 25. 4 40. 4 45. 0 66. 4 69. 3 69. 8 60. 8 46. 3 35. 9 34. 4 48. 3	89. 9 74. 4 63. 4 55. 2 47. 8	65. 9 71. 3 87. 1 88. 1 89. 9 72. 1 60. 4		18. 6 38. 0 42. 9 56. 6 65. 5 68. 5 69. 0 59. 4 44. 5 33. 3 32. 2	33. 5 52. 2 58. 0 67. 0 77. 5 80. 6 81. 9 69. 2 56. 5 46. 5 42. 9	73 78 91 91 102 102 103 95 89 74 67	111 -3 25 14 43 56 62 60 36 29 18 25 -3	23 28 49 54 58 50 55 39 22 27	17 23 30 51 54 54 51 56 41 23 29	53 50 56 40 22 28	% 73 62 50 53 75 66 68 52 83 77 55 74	25 28 50 38 33 29 57 50 30	22 28 51 34 33 29 60 53 35 54	. 126 . 162 . 363 . 423 . 479 . 370 . 455 . 242 . 117	. 098 . 125 . 171 . 387 . 429 . 423 . 380 . 462 . 270 . 125	. 093 . 115 . 168 . 367 . 419 . 410 . 374 . 461 . 258 . 122 . 157	25 9. 02 . 84 . 51 1. 39 4. 74 . 82	. 25 T . 25 4. 38 . 46 . 28 . 83 2. 55 . 48 T . 51	T .00 .00 .00 .00 .00 .00 .00 .00 .00 .0	2. 9 2. 4 2. 8 5. 9 2. 8 2. 2 2. 2 5. 6 4. 0 2. 1 2. 9	4. 0 2. 8 3. 3 6. 6 2. 1 3. 4 3. 1 6. 4 4. 4 2. 0 4. 0	4.7 3.8 4.3 5.7 1.7 4.2 3.2 5.4 4.5	4. 2 2. 9 4. 0 6. 1 2. 1 3. 2 2. 7 5. 7 4. 3 2. 1 4. 1
									ΑPA [φ=29																		
January February March April May June July August September. October November. December. Year	30. 03 29. 94 30. 04 30. 04 329. 97 329. 97 329. 97 329. 97 330. 10 330. 10 3	30. 38   30. 18   30. 28   30. 20   30. 15   30. 15   30. 14   30. 10   30. 41   2   30. 45   30. 45	29. 28 29. 62 29. 60 29. 62 29. 67 29. 70 29. 70 29. 77 29. 89 29. 89 29. 28	69. 0 55. 1 52. 5 65. 6	85. 0 78. 0 65. 4 59. 0	!		47. 0 46. 2 56. 4 60. 3 68. 6 73. 1 75. 5 74. 7 74. 1 66. 3 52. 1 49. 5	52. 2 63. 0 67. 0 75. 0 79. 9 82. 0 81. 1 80. 7 73. 4 60. 4 55. 8 68. 7	71 69 79 83 89 92 94 93 91 90 82 72	70 53 33 36 28	64 48 50	72 65 50 51	78 66 52 52	85 79 90	66 66 60	76 77 74	. 372	0. 794 . 641 . 401 . 393	0. 833 . 809 . 652 . 418 . 391	4. 60 3. 47 2. 95 89 3. 25 3. 64 10. 14 5. 75 2. 83 4. 46 39 3. 81	. 72 . 97 . 48 2. 31 1. 25 4. 04 1. 56 1. 23 2. 19 . 19	0. 0 .0 .0 .0 .0 .0 .0 .0	5. 0 6. 2 6. 1 4. 1 5. 2 3. 8 7. 1 4. 5 3. 9 4. 5 7. 1 5. 1	5. 4 4. 1 4. 2 6. 7	3. 9 5. 5 6. 9 4. 7 4. 9 4. 2 7. 0 5. 8 5. 0 2. 6 3. 8 6. 5	5. 0 5. 2 4. 2 4. 5
		aces y	diy ii	1021111	um a	шошп	is das	ea on	A	SHE	VIL	LE.	N.	C.													
February   March   April   April   May   June   July   August   September   October   Zocember   December   2	27. 56 2 27. 72 2 27. 77 2 27. 66 2 27. 70 2 27. 78 2 27. 78 2 27. 78 2 27. 78 2	8. 01 2 7. 86 2 8. 01 2 8. 16 2 7. 91 2 7. 96 2 7. 96 2 8. 01 2 8. 05 2 8. 10 2	7. 19 6. 96 7. 23 7. 41 7. 44 7. 47 7. 54 7. 55 7. 33 7. 36 37. 40 3	29. 3 41. 1 47. 3 59. 7 66. 3 69. 0 57. 0 52. 9 53. 2 38. 6 87. 3	42. 0 55. 0 58. 6 75. 2 80. 2 81. 4 81. 5 77. 3 64. 2 51. 8 46. 5	38. 8 51. 7 55. 9 70. 0 75. 8 76. 2 73. 8 70. 1 58. 9 46. 3 43. 7	47. 3 60. 4 64. 6 80. 3 85. 0 86. 6 86. 2 80. 8 67. 6 55. 6 51. 0	52. 7 59. 7 64. 5 63. 5 59. 6 49. 4 34. 2 33. 9	33. 4 36. 6 49. 0 53. 3 66. 5 72. 4 75. 6 74. 8 70. 2 58. 5 8. 5 44. 9 42. 4 56. 5	63 73 75 83 89 98 99 94 89 77 73 60	22 43 44 55 52 46 29 12 22	23 25 35 38 48 58 64 64 59 49 33 33	24 24 34 36 46 55 64 64 60 49 34 34	25   36   36   36   46   65   65   65   65   65   65   6	81 82 79 71 35 75 85 86 89 87 80 83 85	51 6 50 8 47 8 37 4 45 5 56 7 7 61 7 61 7	50 57 51 46 55 70 75 76 74	. 247 . 338 . 486 . 601 . 599 . 515 . 369 . 205 . 202	. 140 . 217 . 232 . 320 . 451 . 594 . 604 . 531 . 374 . 216 . 207	. 150 . 221 . 229 . 324 . 471 . 614 . 620 . 561 . 383 . 203 . 209	3. 78 6. 42 4. 38 1. 44 2. 58 6. 77 3. 40 5. 30 3. 85 1. 15 4. 84	2. 74 1. 42 2. 16 1. 65 1. 14 . 93 1. 85 1. 21 1. 96 2. 26 . 71 1. 40 2. 74	10. 5 12. 2 . 2 . 0 . 0 . 0 . 0 . 0 . 0 . 8 6. 2	7. 0 5. 9 6. 2 2. 8 3. 6 5. 5 4. 0 5. 8 4. 5 7. 5	6. 2 6. 6 6. 1 3. 6 4. 1 6. 6 5. 4 5. 8 6. 3 4. 9 8. 0	5. 1 5. 3 5. 0 4. 2 5. 3 7. 5 6. 2 5. 8 5. 5 5. 4 7. 0	5. 6 6. 2
											ΑΝΤ Ν.; λ				}												
January	9. 04 29 8. 90 29 9. 04 29 9. 03 29 8. 92 29 8. 97 29 9. 03 29 9. 03 29 9. 06 29 9. 12 29 9. 14 29	3. 38 28 3. 18 28 3. 4 28 3. 4 28 3. 4 28 3. 22 28 3. 22 28 3. 22 28 3. 32 28 3. 43 28 3. 57 28	3. 46 3 3. 45 4 5. 3. 45 5 3. 63 6 3. 71 7 7. 81 7 6. 79 6 6. 72 5 6. 78 4 6. 77 4	4. 3   4. 7. 8   6. 8   8. 1   7. 8   8. 1   7. 3. 3   5. 1   5.	45. 4 4 4 4 53. 6 5 54. 3 6 6 7 7 8 6 6 6 8 8 6 5. 1 8 7 7 0 1 6 6 6 2 5 0 0 1 4 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	13.8   68.6   68.6   68.6   69.1   69	551. 3 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	32. 0 44. 9 48. 0 50. 5 37. 1 70. 8 70. 0 66. 1 55. 5 10. 0	81. 2 79. 8 76. 0 64. 4 50. 1 46. 6	71 74 82 87 96 102 100 97 93 83 81 66	10 32 30 54 54 59 59 56 40 20 29	30 42 46 55 63 68 68 69 65 55 83 83 7	32 42 44 52 61 68 68 65 55 38 40	31 8 33 8 43 8 44 7 53 6 31 7 53 6 83 8 86 8 87 9 81 8	3 6 0 4 8 5 6 3 4 5 7 5 7 6 7	50 6 17 5 53 5 58 4 15 5 65 6 77 73 11 78 14 60 17 78	7	285 334 439 589 694 711 627 457 252	193 293 317 391 551 679 702 621 464 258	203 302 316 410 544 694 724 648 490 260	8. 42 4. 22 9. 86 . 32 3. 17 4. 03 5. 95 5. 44 3. 61 2. 33		2. 5 T .0 .0 .0 .0 .0	6. 7 5. 2 5. 7 3. 0 2. 7 6. 0 5. 7 4. 8 5. 1	6. 8 6. 4 6. 2 4. 5 4. 2 7. 0 5. 5 7. 1 5. 8 4. 9	6. 3 5. 5 5. 3 3. 7 4. 5 6. 8 4. 7 4. 1 3. 7 4. 4	5. 4 6. 8 5. 5 5. 6 4. 2 4. 1 6. 8 5. 4 6. 2 5. 6 5. 1 7. 5

5 50 50 50 81 55 65 .416 .411 .422 66.15 4.59 10.5 5.2 6.0 5.0 5.7

Year.... 29. 02 29. 57 28. 17 55. 8 67. 8 63. 7 72. 5 52. 0 62. 2 102

<sup>&</sup>lt;sup>2</sup> Observations taken at airport.

						ا	H=	3,657	ft.;		AM A 3,676					=3 ft.	; ha=	=49 f	t.]										
						1	Wind	l												1	Juml	ber	of da	ys					_
		By s	elf-re	gister		Nu	mbe	rof	wind	s, 8 a	. m.	and	8 p.	m.				Pre itat		Sı	low		F	og	Ma mu ten	ım ıp.	ure 32°		ec-
Month	Average hourly ve-	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	C.01 inch or over	0.04 inch or over	T or more	0.01 inch or more melted	Hail	Light	Dense	32° or below	9	Minimum temperatu	Thunderstorm	Aurora
January February March April May June July August September October November December	Mi. 9. 3 9. 4 11. 0 11. 0 9. 6 9. 4 8. 9 8. 5 9. 0 8. 9 9. 3 9. 4 9. 5	W. SE. SW. S.	10 5 4 6 7 1 7 2 5 7 8 10 72	0 0 0 0 0 1 1 1 2 0 0 0 1 0 0 1	10 13 18 15 7 21 17 23 9 16 24 17	13 9 11 9 12 9 13 6 12 7 3 5	8 7 2 6 12 0 1 2 9 8 3 9	6 1 0 1 13 4 6 5 11 5 0 4	5 1 0 1 11 3 5 3 7 4 0 2 42	5 4 0 2 0 0 0 0 0 0 0 2 0 0 0 2 0 1 5	5 1 0 0 0 0 0 0 0 0 0 0 2 0 2	000000000000000000000000000000000000000	3 2 0 1 1 1 1 0 0 4 3 1 6	2 1 0 1 1 1 1 0 0 0 0 2 0 3	4 5 0 0 0 0 0 0 0 0 0 0	0 0 0 2 1 15 22 27 6 0 0 0	23 23 5 6 0 0 0 0 4 13 18	0 0 0 2 8 4 3 3 2 0 0 0	0 0 0 0 0 0 0 0 0 0 0										
							[H	=13	ft.; I	APA 1 <sub>b</sub> =3							=51	ft.]											
January February March April May June July August September October November December	8. 3 8. 7 9. 3	N. N. E.	40 	s.	1	9 16 6 5 12 7 5 14 11 20 17 11 133	10 8 6 11 10 6 4 8 11 17 16 21	11 13 8 6 13 7 2 5 9 5 4 12	7 7 5 5 9 6 3 8 6 7 4 3	11 9 16 14 3 7 5 10 6 4 2 5	1 0 4 7 3 12 15 4 4 0 2 1	7 3 10 9 10 9 22 7 9 4 5 3	6 0 7 2 2 6 6 6 4 4 10 6 59	0 2 0 1 0 0 0 0 0 0 0 1 0 0 0 0	9 7 7 11 9 10 2 10 9 14 15 6	8 10 8 11 14 18 16 16 15 10 5 5	14 12 16 8 8 2 13 5 6 7 10 20	13 15 12 5 4 11 13 14 8 8 4 9	9 12 7 4 4 8 11 12 7 7 7 2 7	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	12 4 4 1 0 0 0 0 0 0 5 8 10	8 5 3 0 0 0 0 0 0 1 1 18	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 5 6 6 6 3 0 0	2 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 3 3 2 4 10 14 16 16 2 0 3	0 0 0 0 0 0 0 0 0 0
<sup>1</sup> Estima	ted.									A	SHE	VIL	LE	, N.	C.														
						1		192 f						1			h <sub>a</sub> =												
January February March April May June July August September October November December	6. 9 6. 6 5. 9 5. 8 6. 3 7. 9 9. 4 8. 6	N. NW. NW. NW. S. NW. S. NW. S. SE. NW. NW.	31 32 38 32 21 27 31 30 23 24 27 26	NW. NW. NW. SW. NE. W. SE. NE NW. SE.	0 1 3 1 0 0 0 0 0 0 0	19 14 14 6 12 14 16 8 4 15 14 14	0 0 0 0 1 2 0 0 2 2 0 1 8	1 1 3 2 3 3 7 7 2 1 35	14 11 15 21 16 13 11 14 16 17 12 17	12 12 9 5 8 12 3 17 11 6 5 15	1 0 3 0 3 4 1 1 0 0 0 0	0 1 0 4 4 5 2 2 0 0 2	15 18 16 19 15 5 23 10 6 12 22 8	0 1 2 3 0 3 3 7 12 3 5 4	11 9 7 6 19 14 4 9 8 9 11 5	6 10 10 14 9 10 12 16 12 11 10 9	14 10 14 10 3 6 15 6 10 11 9 17	13 13 15 10 5 9 16 10 9 11 8 14	11 11 6 3 8 14 8 8 8 4 12	3 0 0 0 0 0 0 3 3	4 6 4 1 0 0 0 0 0 0 0 1 2 18	0 0 0 0 0 2 1 0 0 0 0 0 0 0	4 5 4 2 0 2 9 19 15 5 5 3	3 0 3 1 0 0 0 6 8 4 4 0	7 3 0 1 0 0 0 0 0 0 0 2 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	18 21 8 6 0 0 0 0 1 14 17 85	3 0 5 3 4 9 16 15 6 1 0 0 62	0 0 0 0 0 0 0 0 0
							[H=	975 f	t · H		TL.					: h.	=53	ft.1											

 $[H=975 \text{ ft.}; H_b=976 \text{ ft.}; h_t=5 \text{ ft.}; h_r=38 \text{ ft.}; h_a=53 \text{ ft.}]$ 

January	5 NW. 1 NW. 2 S. 4 SW. 7 W. 9 NE. 2 NE. 2 NE. 3 NE. 8 NE.	48 35 43 30 22 35 32 30 25 24 29 27	NW. NE. NW. NW. NW. NW. NW. NE.	1 2 3 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0	8 4 6 5 7 3 4 12 6 6 6 10 5	4 7 11 6 12 21 17 9 19	10 6 2 8 11 6 4 8 7 13 4 15	2 4 5 5 5 8 7 2 3 3 2 3 6	5 8 13 10 9 6 6 10 6 8 2	5 2 4 6 4 11 11 4 6 1	5 23 5 21 9 15 8 13 2 13 9 5 21 8 7 6 4 5 4 11 9 19 4 12	0 0 2 1 1 2 0 0 0 2 0	10 9 13 12 4 7 3 10 13 4	5 6 10 9 14 14 11 18 17 8 3 7	13 16 11 12 4 4 16 6 10 13 14 20	15 15 14 12 10 8 12 9 2 1 7 4 11 9 11 8 8 6 10 8 7 5 17 15	4 1 0 0 0 0 0 0 0 0 0	2 3 1 0 0 0 0 0 0 0	0 0 0 1 0 0 0 0 0 0	14 14 19 10 1 4 2 7 4 8 7 11	5 6 3 3 0 0 1 1 1 2 1 4	3 0 0 0 0 0 0 0 0	0 0 0 0 6 22 19 20 8 0 0	18 14 1 2 0 0 0 0 0 0 0 6 4	6 1 5 5 2 12 10 13 7 2 0 2	0 0 0 0 0 0 0 0 0 0
Year 8.3	NW.	48	W.	8	76	124	94	50	84	58	87 151	8	105	122	139	124 100	10	6	1	91	27	3	<b>7</b> 5	45	65	0

<sup>2</sup> Observations taken at airport.

Table 16.—Annual meteorological summaries for the year ended Dec. 31, 1936—Continued ATLANTIC CITY, N. J.

										[φ	=39°	22′ N	.; λ	=749	25'	w.)												
		Pres	ssur	e				Temp	eratu	re											Moist	ure						
		Е	xtre	mes			M	[ean			Ext	remes	3	De poir			elati mid		Vap	or pre	essure	Pre	ecipit	ation		Clot	ıdine	ss
Month	Monthly mean	Movimum	TATGATHATT	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24	Total snowfall	8 а. ш.	Noon, local time	8 p. m.	Daylight
January February March April May June July August September October November December	30. 0 29. 8 29. 9 30. 0 29. 8 29. 8 29. 9 30. 0 30. 0 30. 0 30. 0	6 30. 4 30. 4 30. 9 30. 0 30. 7 30. 4 30. 6 30. 3 30. 4 30. 2 30. 9 30.	49 2 47 2 35 2 51 2 56 2 18 2 26 2 30 2 48 2 54 2 66 2	99. 30 99. 02 99. 35 99. 54 99. 55 99. 71 99. 33 99. 20 99. 36 99. 50	28. 0 26. 3 42. 1 45. 8 59. 8 65. 9 72. 4 73. 1 66. 7 57. 6 43. 2 38. 6	3 31. 6 46. 6 8 49. 8 6 62. 8 6 69. 7 77. 4 70. 8 6 63. 3 49. 8 44. 6	3 29. 9 9 43. 5 8 48. 4 9 59. 7 7 67. 0 7 73. 5 4 73. 7 67. 7 8 67. 7 4 59. 7 4 59. 7 6 7 2 6 7 3. 5 6 7 4 5 6 7 4 6 7 4 6 7 2 6 7 6 7 8 8 6 6 7 7 6 7 8 8 6 6 7 8 8 6 6 7 8 8 6 6 7 8 8 6 6 7 8 7 8 8 6 6 7 8 8 6 6 7 8 8 6 6 7 8 7 8 6 6 7 8 7 8 6 6 7 8 7 8 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8	35. 5 49. 6 53. 8 67. 5 73. 0 79. 8 79. 9 73. 2 65. 5 52. 6 48. 2	22. 1 37. 9 41. 4 53. 2 61. 5 67. 8 68. 4 63. 0 53. 3 37. 6	28. 8 43. 8 47. 6 60. 4 67. 2 73. 8 74. 2 68. 1 59. 4 45. 1 41. 2	63 73 70 85 90 94 93 80 74 67 64	31 42 57 62	37 37 49 60 64 66 61 52 34 32	20 38 37 50 60 66 67 61 51 34 34	0 24 22 36 38 50 60 67 66 62 51 33 34	% 79 75 83 72 71 82 77 80 82 77 77 78	75 64 65 74 70 72 73 66 55 69	70 78 70 74 80 80 79 82 75 63 73	In. 0. 137 . 122 . 227 . 230 . 365 . 525 . 615 . 654 . 449 . 217 . 198 . 355	In. 0. 143 . 124 . 236 . 233 . 373 . 532 . 643 . 675 . 550 . 404 . 217 . 210 . 362	. 126 . 223 . 241 . 376 . 528 . 664 . 661 . 565 . 410 . 222 . 208	In. 5. 92 4. 71 3. 87 3. 32 2. 47 4. 50 3. 74 3. 01 5. 74 2. 30 . 67 7. 65	In. 1. 8 1. 2 1. 6 1. 2 2 1. 2 2 1. 4 1. 4 1. 4 1. 4 1. 4	In. 2. 77 8. 55 T T T . 00 . 00 . 00 . 00 . 00 . 00	6. 3 5. 7 5. 7 4. 3 6. 9 6. 5 5. 6 5. 2 5. 7 6. 8	6. 8 7. 1 7. 2 4. 7 7. 0 5. 9 5. 8 6. 9 7. 3	4. 9 6. 6 6. 9 5. 2 8. 0 8. 3 7. 2 5. 0 4. 5 3. 8	6.3 7.0 6.8 4.7 7.2 6.8 6.3 5.7 5.9 7.3
										[d=		GUS'. 3' N.;				1								<u></u>				
January February March March April Musy June July August September October November December	29. 89 29. 72 29. 87 29. 85 29. 73 29. 76 29. 84 29. 88 29. 88 29. 95 30. 00	30. 0 30. 0 30. 0 30. 0 30. 0 30. 0 30. 3 30. 3 30. 4	27   29   29   29   29   29   29   29	9. 16 9. 08 9. 35 9. 45 9. 53 9. 51 9. 62 9. 62 9. 62 9. 62 9. 62 9. 62	37. 7 39. 2 51. 7 56. 0 67. 7 74. 4 77. 6 76. 2 71. 8 62. 3 46. 7 44. 9 58. 8	49. 9 65. 9 67. 2 81. 8 86. 4 89. 4 87. 1	49. 2 62. 8 65. 6 77. 7 82. 2 84. 4 82. 7 78. 6 69. 1 55. 7 51. 7	55. 4 71. 4 72. 7 86. 0		44. 4 45. 9 60. 0	73 76 86 90 96 105 102 98 96 88 82 75	17 17 35 34 58 57 59 63 59 42 25 30	32 33	34 33 43 46 53 67 71 67 57 40 43	34 34 44 46 57 64 68 72 69 59 42 44	81 79 79 76 73 76 75 86 85 81 87	55 46 52 39 48 50 59 58 56 50 69	58 54 53 51 57 60 72 74 71 62 76	. 282	. 207	. 211	7. 99 . 92 1. 92 2. 98 8. 31 1. 92 3. 11 2. 64 5. 82	2. 04 1. 30	T T .00 .00 .00 .00 .00 .00 .00 .00 .00	5. 2 4. 4 5. 3 3. 8 5. 0 4. 2 6. 3 4. 5 4. 1	6.00 5.00 5.63 3.73 8.84 4.75 4.77	3.8 4.9 4.2 4.3 3.6 4.7 6.5 3.6 3.6 3.6 7.2 4.5	5. 7 5. 5 4. 1 4. 6 5. 8 4. 9 5. 7
										$[\phi = 0]$		STIN 'N.;				.]												
July2	29, 38 29, 27 29, 39 29, 31 29, 26 29, 33 29, 33 29, 30 29, 43 29, 58 29, 48	29. 8 29. 6 29. 7 29. 5 29. 4 29. 5 29. 5 29. 7 29. 7	3 28 4 28 4 28 0 29 6 28 9 29 1 29 1 29 5 29 9 29	. 82 . 89 . 83 . 07 . 96 . 06 . 13 . 05 . 18 . 13	40. 5 41. 2 55. 5 57. 2 67. 8 74. 7 74. 7 74. 9 72. 3 56. 2 48. 1 45. 8	55. 2 52. 1 71. 9 73. 8 79. 5 89. 3 87. 7 91. 1 84. 6 70. 9 60. 4 59. 0 73. 0	81. 2 69. 1 58. 0 57. 8	61. 6 60. 0 76. 8 78. 6 82. 5 93. 4 91. 0 94. 6 89. 0 75. 0 64. 7 63. 7 77. 6	37. 2 37. 2 54. 0 54. 5 65. 4 72. 8 73. 3 73. 5 70. 7 54. 5 45. 5 42. 9	49. 4 48. 6 65. 4 66. 6 74. 0 83. 1 82. 2 84. 0 79. 8 64. 8 55. 1 53. 3	82 82 90 94 91 106 96 105 98 88 87 78	42 38 59 64 69 64 56 43 30 29	33 35 47 48 64 68 72 69 69 52 42 43	36 46 48 63 65 68 67 67 53 42 44	37 45 46 63 66 70 68 68 55 44 8	78 76 74 89 80 80 80 83 81 88 81 88	57 45 44 45 59 46 46 55 46 55 65 65 65 65 65 65 65 65 65 65 65 65	54 43 41 63 49 61 53 66 63 62 63	340 379 605 690 775 721 735 405 294 292	. 245 . 337 . 377 . 560 . 626 . 702 . 664 . 681 . 422 . 296 . 304	. 243 . 330 . 346 . 576 . 639 . 733 . 683 . 697 . 442 . 316	0. 39 1. 70 1. 52 . 66 8. 15 3. 30 9. 25 2. 90 5. 22 2. 63 2. 30 1. 88 9. 90	0. 17 . 79 1. 47 . 59 1. 72 3. 18 5. 12 2. 38 1. 52 1. 19 . 75 . 64 5. 12	.0	5. 6	3. 9	2. 9 3. 6 3. 4 3. 8 3. 3 4. 3 4. 4	4.7
										[φ=44		ER, Ν.; λ				.]												
February 2 March 2 April 2 April 2 May 2 June 2 July 2 August 2 October 2 October 2 November 2 December 2	6. 43 2 6. 46 2 6. 49 2 6. 56 2 6. 74 2	26, 83 26, 83 26, 89 26, 67 26, 67 226, 61 226, 66 80 27, 00 26, 88	3 25. 7 25. 9 25. 4 26. 7 26. 1 26. 3 26. 26. 26. 26. 26.	57 1 86 2 98 3 02 4 09 4 11 5 15 4 16 3 25 2 87 2	17. 3 29. 1 38. 8 45. 6 49. 7 54. 7 53. 5 63. 5 88. 1 33. 8 66. 8	40, 9 57, 0 66, 7 69, 9 78, 7 78, 5 67, 4 62, 1 44, 7 36, 4	25. 6 41. 8 58. 9 68. 7 71. 4 83. 2 82. 2 70. 3 62. 6 41. 4 34. 1	29. 8 44. 9 61. 6 71. 8 75. 4 86. 4 84. 9 73. 5 67. 1 49. 1 38. 7	25, 3 36, 6 43, 1 47, 7 53, 1 51, 1 40, 3 34, 6 19, 2 22, 1	26. 3 20. 5 35. 1 49. 1 57. 4 61. 6 69. 8 68. 0 56. 9 50. 8 34. 2 30. 4	63 83 91 99 99 94 90 82 61 50	-14 10 7 33 39 43 39 25 24 10 12	12 23 32 38 44 41 36 31 27 15 23	15 23 32 37 45 44 38 33 35 21 26 2	18 7 24 7 33 7 36 7 45 8 45 8 45 8 45 6 60 6 86 8	78 6 76 4 78 4 75 3 32 4 33 3 33 2 35 3 37 3 44 6	34 7 19 5 12 4 35 3 14 4 12 3	70	120 188 230 295 263 214 179 149 082 121	094 126 185 223 305 292 233 195 204 114 139	. 104 . 130 . 190 . 222 . 302 . 311 . 239 . 186 . 192 . 107 . 141	2. 44 1. 64 . 98 1. 15 . 69 1. 60 . 49 . 08 . 33 . 03 T . 35	0. 76 . 30 . 33 . 60 . 45 . 45 . 35 . 07 . 19 . 03 . T . 18	20. 5 6. 7 1. 4 T .0 .0 .0 T T .4 1. 5	7. 4 5. 4 5. 6 4. 8 5. 4 2. 2 2. 2 2. 5 1. 8 6. 0	6. 4 6. 0 4. 5 5. 0 2. 8 2. 7 2. 3 1. 9 3. 9 8. 4	8. 3 5. 5 6. 3 5. 7 5. 4 2. 7 3. 2 2. 7 2. 8 4. 3 8. 5	7. 8 8. 5 6. 1 6. 2 5. 6 2. 5 2. 8 2. 4 2. 8 3. 8 4 5. 2

Table 16.—Annual meteorological summaries for the year ended Dec. 31, 1936—Continued Atlantic City, N. J.

	1		$[H=8 \text{ ft.; } H_b=52 \text{ ft.; } h_t=$ Wind												r=33	ft.;	ha=	172 f	t.]										
							Wind	1												1	Vuml	ber (	of da	ys					
		Bys	elf-re	gister		Nu	ımbe	r of	wind	s, 8 a	. m.	and	8 p.	m.				Preditat		Sı	10W		F	og	mu	axi- im np.	ure 32°		lec-
Month	Average hourly velocity	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	T or more	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperature or below	Thunderstorm	Aurora
January February March April May June July August September October November December	17. 5 16. 5 15. 1 14. 8 13. 1 14. 2 15. 9 14. 7 16. 7	S. S. S. S. S. NW.	Mi. 51 50 46 57 36 40 43 37 73 59 43 51 73	E. S. NW SE. NW W. NE. E. W. SE.	111 6 100 8 2 6 6 3 1 5 5 7 7 7 71	7 6 4 7 6 5	3 9 3 4 6 8 5 12 11 2 4 6	5	3 7 6 4 8 8 8 3 9 12 1	5 21 14 25 14 12 13 11 10 8 3	5 4 4 7 7 11 14 12 6 9 12 100	17. 8 15. 00. 5. 8. 8. 2. 2. 10.	6 8 3 6 12 5 4 2 2 5 13 12 78	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7 10 5 5 14 4 6 6 6 7 10 9 4	8 1 7 11 9 7 9 14 8 6 6 7	16 18 19 14 8 19 16 11 15 15 20	12 11 16 15 7 13 12 10 9 10 7 13	8 5 10 8 5 8 8	10 5 2 1 0 0 0 0 0 0 2 2 2 2 1 2 2 2 2 2 2 2	3 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 6 15 5 7 7 2 6 11 8 3 8	1 3 9 3 5 5 0 4 2 3 0 4 3 9	10 12 1 0 0 0 0 0 0 0 0 0 0 2 3	0 0 0 0 0 1 1 3 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	24 8 2 0 0 0 0 0 1 9	0 0 3 4 8 12 10 2 0 0	0
							[E	I = 13	4 ft.;	Пь=		GUS ft.; l				:54 ft	; h <sub>s</sub>	=77	ft.]										
January February March April May June July August September October November December	6. 3 6. 3 7. 1 6. 9 5. 8 6. 1 6. 5 4. 9 5. 8 6. 4 6. 3	NW. NW. NW. S.	41 21 27 24 24 29 24 28 15 21 21 20 41	SW. NW NW. NE. NE. SE. NE. SE. NW. NW.		3 2 2 8 3 2 6	11 4 7 11	5 6 8	4 9 14 10 8 3 5 9 1 4 4 4	9 6 14	4 4 6 0 4 6 11 2 1 8 3	6 3 5 14 2 2 4 8	20 16 12 17 7 6 9 13 8 13 17 10	4 2 5 2 3 0 0 4 2 5 2 6 3 5	11 10 8 11 13 11 6 8 7 13 11 5	8 4 11 7 12 12 17 17 13 7 9 6 123	12 15 12 12 6 7 8 6 10 11 10 20	14 11 13 10 4 11 12 12 12 8 7 7 14		2 2 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8 6 3 2 0 0 3 4 3 6 7	3 2 2 0 0 0 0 0 0 1 2 2	0 0 0 0 0 0 0 0 0 0	0 0 0 1 6 17 28 22 8 0 0 0	10 0 0 0 0 0 0 0 0 0 3 3	0 3 6 2 7 9	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
							[H	= 53	1 ft.;	H <sub>b</sub> =		STII [t.; b				60 ft	.; h <sub>a</sub>	=90	ft.]										
January February March March April May June July August Settember October November December	8. 3 8. 9 8. 7 10. 3 7. 4 7. 7 6. 9 7. 0 7. 1 7. 7	N. N. SE. SEE. SEE. NN. SE.	28 30 31 35 27 22 27 23 29 30 27 23	N. SE. S. NW. NE. N.	0 0 0 1 0 0 0 0 0 0 0 0 0	14 15 15 13 8 5 3 7 17 28 12	8 5 2 7 8 2 2 1 0 8 5 2 50	1 9 1 16 13 3 4 8 5 3 6	12 24 20 19 29 28 28 8 0	7 5 23 8 6 15 15 12 9 9 5 8	1 3 2 3 1 1 0 4 1 3 4 11 3 4 11		11 2 5 4 2 3 4 3 3 10 9 11	2 1 2 0 0 1 3 5 3 1 4 3 2 2 5	15 7 11 14 5 17 13 16 10 16 7 12	10 9 13 7 14 10 16 13 12 3 12 8	6 13 7 9 12 3 2 2 8 12 11 11	4 5 4 6 13 3 11 7 10 8 8 8 8	3 3 11 3 7 4 8 6 5 6	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7 8 5 1 3 1 2 1 7 4 5 7	1 2 0 0 0 0 0 0 0 2 1 0 5	0 0 0 0 0 0 0 0 0	0 0 2 2 1 26 19 27 18 0 0	11 0 0 0 0 0 0 0 0 0 0 2 3	9 3	0 0 0 0 0 0 0 0 0 0
						[]	H=3	,445	ft.; F	$I_b = 3$	BAF ,471 1					41 ft.	; ha	= 5 <b>4</b> 1	ft.]										
January February March April May June July August September October November December	6. 4 6. 1 6. 5 6. 1 6. 2 5. 6 5. 7 5. 8 6. 0 6. 4 6. 5 5. 8 6. 1	SE. SSE. NN. NN. SSE. SE.	21 26 24 26 20 29 23 17 17 17 23 18 19	W. SW. SW. N. W. S. SW. N. SW. W.	0 0 0 0 0 0 0 0 0 0 0	2 7 9 12 11 12 13 16 19 18 11 3	4 2 2 0 1 2 0 3 3 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3 0 3 3 3 3 2 0 0 0 0 2	22	18 16 11 9 7 14 14 12 5 0 8 3	2 5 5 3 4 3 4 2 1 3 1 1	2 4 3 2 2 4 2 1 2 9 7 10 48	2 7 3 9 3 8 9 10 8 2 1 5	4 0 1 1 1 0 1 1 0 0 1 1 1 1 1 0 1 1 1 1	4 1 8 5 11 10 21 22 22 21 16 2	4 6 11 14 11 7 6 4 3 7 7 5 85	23 22 12 11 9 13 4 5 5 5 7 24	20 18 15 10 6 11 5 2 6 1 0 9	16 13 9 4 4 8 2 1 2 0 0 2	25 22 16 5 1 0 0 0 1 1 1 2 14	20 17 12 2 1 0 0 0 0 0 1 0 4	0 0 0 1 1 0 0 1 0 0 1	8 6 0 0 0 0 0 0 0 0 0 0 0 2	4 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 7	13 17 2 1 0 0 0 0 0 0 1 3	0 0 0 0 1 3 12 9 0 0 0 0 0 25	27 29 7 0 0 0	0 0 0 4 2 5 3 1 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0

Table 16.—Annual meteorological summaries for the year ended Dec. 31, 1936—Continued

BALTIMORE, MD.

[6=30°17' N · ) = 76°37' W 1

b=39°17′	N.; $\lambda = 76^{\circ}37'$	7X7 7
P-09 II	TA" V=10.31	YV . I

									$[\phi =$	39°1′	7′ N.;	λ=	76°3	7′ W	7.]												
		Pressi	ıre				Temp	eratu	re			T							]	Moist	ure						
		Ext	remes			1M	[ean			Ext	reme	S	De <sup>,</sup> poir			elati mid:		Vap	or pre	ssure	Pre	cipita	tion		Clou	ıdine	SS
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
January February March April May June July August September October November December	29, 99 29, 76 29, 92 29, 79 29, 77 29, 89 29, 96 29, 98 29, 96 30, 13	30. 27 30. 40 30. 49 30. 10 30. 20 30. 22 30. 29 30. 38 30. 52 30. 58	29. 28 28. 96 29. 30 29. 54 29. 45 29. 51 29. 62 29. 58 29. 19 29. 35 29. 42	36. 5 36. 5	2 31. 3 52. 1 56. 3 72. 0 78. 8 83. 1 83. 7 75. 6 65. 4 50. 1	32. 0 49. 8 53. 7 69. 8	36. 8 56. 9 60. 8 77. 7 81. 9 87. 6 87. 0 79. 0	22. 6 40. 8 42. 9 57. 8 64. 6 69. 6 69. 5 63. 8 51. 5 37. 6	29. 7 48. 8 51. 8 67. 8 73. 2 78. 6 78. 2 71. 4 60. 0 45. 6	55 65 75 86 91 96 107 97 92 81 78 64	0 9 24 32 45 55 60 59 49 30 20 15	35 50 60 63 64 58 48 31	40 52	22 20 40 38 53 59 65 66 61 49 32 32	70 76 63 64 68 69 72 74 76 65	% 62 58 66 56 51 54 51 53 58 55 55	% 64 6 60 71 58 57 60 60 64 69 67 57	In.	In. 0. 131 . 112 . 268 . 268 . 405 . 519 . 568 . 620 . 517 . 369 . 201	In. 0. 127 . 119 . 267 . 245 . 419 . 532 . 621 . 647 . 550 . 383 . 205 . 187	In. 5. 94 3. 75 6. 42 2. 56 3. 18 1. 48 4. 89 4. 60 2. 16 1. 73 . 79	In. 2. 37 1. 73 2. 10 . 72 1. 22 . 47 1. 31 2. 51 1. 58 . 89 . 36	In. 2. 2 14. 6	6. 5 7. 3 6. 4 5. 9 4. 0 5. 5 4. 7 4. 5 5. 5	5. 5 6. 7 7. 2 6. 7	5. 1 4. 1 4. 6 5. 4 3. 4 5. 6 5. 7 5. 6 4. 3 4. 7 4. 5	5. 9 6. 1 7. 0 6. 5 3. 4 5. 2 5. 0 5. 4 5. 0 5. 5
Year	29. 91	30. 58	28. 96	52. 3	60. 4	57. 8	64. 5	48. 2	56, 4	107	0	43	44	45	70	56	63	. 334	. 347	. 358	44. 60	2. 51	- 1	5. 6	5. 6		5. 5
											IAM <sup>†</sup> N.; )																
February March April April May June July August September October November	29. 01 29. 00 29. 10 29. 18 29. 13	29. 56 29. 40 29. 52 29. 70 29. 37 29. 41 29. 48 29. 48 29. 58 29. 69 29. 72	28. 38 28. 18 28. 46 28. 71 28. 65 28. 75 28. 82 28. 72 28. 30 28. 50 38. 38	19. 9 13. 1 35. 1 40. 2 54. 6 62. 8 65. 2 64. 6 56. 3 47. 1 32. 3 29. 4 43. 4	25. 0 22. 5 44. 8 48. 0 68. 1 73. 1 81. 2 78. 4 70. 4 57. 1 38. 9 35. 5		28. 9 28. 9 50. 5 53. 2 73. 5 77. 8 86. 0 83. 3 75. 1 61. 1 44. 0 41. 0 58. 6	15. 3 7. 3 30. 9 35. 0 47. 0 56. 1 57. 6 59. 4 51. 9 42. 1 27. 3 23. 7 37. 8	18. 1 40. 7 44. 1 60. 2 67. 0 71. 8 71. 4 63. 5 51. 6 35. 6 32. 4	44 56 69 82 91 89 103 97 91 79 71 60 103		53 57 59 52 42 28 24	18   16   33   34   46   53   54   58   54   43   28   27   27   39   2		91   84   674   674   674   675   676   67	76 75 35 35 360 537 571 60		185 199 333 416 477 507 408 291 161 141	0. 107		3. 12 1. 24 6. 24 2. 65 2. 36 3. 07 . 88 6. 70 2. 49 3. 48 2. 92 1. 99 7. 14	1. 62 . 57 1. 14 1. 05 . 35 2. 20 1. 00 1. 12 1. 54	8. 2 5. 1 . 4 . 0 . 0 . 0 . 0 . 0 T 6. 1 4. 1	5. 8 3. 4 6. 3 4. 5 7. 0 8. 1 8. 3	7. 7 7. 1 8. 8 8. 2 6. 3 6. 6 6. 7 5. 7 6. 6 6. 9 7. 7 7. 8	1	8. 5 7. 3 8. 2 8. 4 6. 1 6. 6 6. 6 7. 5 8. 0 8. 2
											NGH N.;)																_
February 2 March 2 April 2 May 2 June 2 Juny 2 August 2 September 2 October 2 November 2 December 2	29, 30 2 29, 30 2 29, 28 2 29, 16 2 9, 23 2 9, 27 2 9, 27 2 9, 31 2 9, 40 2	9, 68 2 9, 41 2 9, 58 2 9, 62 2 9, 43 2 9, 44 2 9, 41 2 9, 46 2 9, 54 2 9, 54 2 9, 75 2 9, 75 2 9	8. 71 8. 86 8. 75 8. 89 9. 06 8. 99 9. 06 9. 03 9. 06 9. 03 4	37. 1 51. 5 54. 6 67. 0 74. 0 74. 7 73. 9 70. 9 58. 6 14. 1	47. 7 65. 4 65. 5 81. 4 89. 4 86. 4 86. 6 84. 8 73. 3 58. 4	46. 4 61. 9 63. 4 77. 4 88. 9 80. 8 80. 8 9 78. 1 66. 7 53. 1 49. 9	53. 8 70. 2 71. 4 85. 1 94. 0 90. 7 90. 3 88. 7 76. 7 31. 8 57. 1	33. 6 48. 7 50. 4 63. 3 69. 5 70. 7 70. 5 68. 2 55. 8 41. 1 40. 9	41. 6 43. 7 59. 4 60. 9 74. 2 81. 8 80. 7 80. 4 78. 4 66. 2 51. 4 49. 0 64. 0	75 74 84 88 90 101 102 97 95 85 82 71	8 11 34 31 52 59 60 60 56 43 24 26 8	32 31 43 446 557 663 670 666 666 666 666 660 660 660 660 660	333 331 444 445 656 666 666 666 666 666 666 666	32 8 33 8 43 7 45 7 55 7 60 7 86 8 70 8 87 8 87 8 81 8 81 8	32 6 30 5 4 4 5 1 4:4 5 6 6:8 5:5 56 7 5:5 66	5 6: 8 5: 2 5: 3 4: 0 4: 0 6: 7 7: 6: 6: 7: 6: 7: 6: 7: 6: 7: 6: 7: 6: 7: 6: 6: 7: 6: 6: 7: 6: 6: 7: 6: 6: 6: 6: 6: 6: 6: 6: 6: 6	3	196 . 306 . 336 . 471 . 588 . 736 . 650 . 446 .	732 719 658 454 264 279	212 302 332 442 530 711 8729 666 451 1266	7. 34 2. 87 5. 20 65 1. 81 3. 52 4. 00 2. 70 1. 64 1. 62 7. 78	2. 45 1 4. 18 1. 00 1. 43 . 45 . 61 2. 69 1. 85 1. 21 . 91 . 58 2. 08	.1 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0	7. 0 5. 8 5. 7 6. 7 6. 2 6. 2 6. 2 6. 2	6. 4 5. 1 6. 1 4. 6 3. 5 6. 7 5. 0 5. 8 4. 8 4. 6 3. 6	6. 1 4. 6 4. 7 3. 6 3. 0 6. 2 4. 3 3. 7 4. 1 3. 1 5. 3	2. 5 6. 5 4. 6 5. 0 4. 5 4. 7
									BIS $[\phi = 46]$		RCK, Ν.; λ=				]										1		_
January 28 February 28 March 28 April 28 May 28 June 28		$\begin{array}{c c}     . & 33 & 27 \\     . & 71 & 27 \\     . & 56 & 27 \\   \end{array}$	. 67 2 . 75 2 . 50 5	15.9 — 23.8 3 29.3 4	6. 8 - 32. 1 3 44. 4 4	6. 6 — 31. 5 3 5. 0 4	9. 5	20.6 — 20.0 26.7	11.4 28.2 38.1	23 — 55 31	28 -1- 45 -20 0 20 3 23 33 40	$\begin{bmatrix} -1 \\ 2 \\ 3 \end{bmatrix} = \begin{bmatrix} 2 \\ 2 \end{bmatrix}$	2 - 4 5	11 8 24 8 26 7	31 7 35 7	$     \begin{bmatrix}       7 & 8 \\       0 & 7 \\       0 & 5     \end{bmatrix} $	$\begin{bmatrix} 0 \\ 2 \\ 1 \end{bmatrix}$ .	018 113 132	034 0. 026 . 130 . 138 . 248 .	028 128	. 59	. 17   9	). 3 4 6 6	. 9 5	3. 2 5. 7 7. 0 6. 9	5. 8 6 5. 2 6 6. 2 6	3. 5 5. 0 5. 3

Table 16.—Annual meteorological summaries for the year ended Dec. 31, 1936—Continued BALTIMORE, MD. [H=14 ft.;  $H_b=123$  ft.;  $h_t=100$  ft.;  $h_r=90$  ft.;  $h_a=215$  ft.]

	1						[H=	= 14 f	t.; H	b=12	3 ft.;	h <sub>t</sub> =	100	ft.; h	n=90	0 ft.;	h <sub>a</sub> =	215 ft	.]										
						7	Wind	l	_											N	lumb	er o	of da	ys					
		Bys	elf-re	gister		Nu	mbe	rof	winds	s, 8 a	. m.	and	8 p.	m.				Prec		Sn	ow		F	og	Ma mu ten		ure 32°		lec- city
Month	Average hourly velocity	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	T or more	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperature or below	Thunderstorm	Aurora
January February March April May June July August September October November December	12. 2 10. 2 10. 3 9. 2 9. 7 10. 1 9. 9 11. 2 10. 1		Mi. 422 31 34 40 322 38 32 38 35 35 42	NE. S. NW NE. NW. NE. SE. NW.	2 0 2 5 2 1 1 2 1 3 3 1	13 3 8 8 10 9 5 9	11 12 18 4 5 11 11 12 11 13 10 15	3 5 2 4 2 6 2 3 5 4 2 2 4 4 2 4 4 2 4 4 2 4 4 2 4 4 2 4 4 2 4 4 2 4 4 4 2 4 4 4 2 4 4 4 2 4 4 4 2 4 4 4 4 2 4 4 4 4 2 4 4 4 4 2 4	1 12 3 8 7 1 3 6 2 1 1	8 8 11 13 17 11 13 10 15 14 8 4 132	23 15 11 17 12 19 21 7 13 18 6 174	0 0 0 5 2 0 1 6 1 5 7	3 6 2 6	0 0 0 0 0 0 0 0 0 0 0	9 7 6 6 20 12 12 14 12 14 7 11	7 6 8 9 8 8 9 8 6 5 14 5 9 3	15 16 17 15 3 10 10 9 12 12 9 15	14 11 15 14 6 13 15 12 8 9 7 14	9 7 11 8 5 7 12 11 6 6 4 13	111 7 2 1 0 0 0 0 0 0 0 0 2 4 2 2 7	8 5 2 0 0 0 0 0 0 0 0 3	0 0 0 0 1 0 0 0 0 0 0 0	15 11 18 7 2 1 2 2 7 19 9 15	1 2 3 0 0 0 0 0 1 0 1 2	9 13 0 0 0 0 0 0 0 0 0 1	0 0 0 0 4 5 14 13 3 0 0 0	23 6	5 6 12 10 1	0 0 0 0 0 0 0 0 0 0 0
							[H=	=858	ft.; F					N, 1 ft.; l			ha=	79 ft.	]										
January February March April May June July August September October November December	7. 7 7. 2 6. 9 7. 8 6. 5 6. 0 5. 6 5. 3 5. 5 6. 3 7. 4 6. 8 6. 6	W. W. NE. NW. NW. NE. NW. NE. NW. NW. NW. NW. NW.	28 23 30 27 37 21 23 30 17 25 25 24 37	SW. W. NW. NW. SW. NE. W. NW. NW. NW.	0 0 0 0 1 1 0 0 0 0 0 0 0	3	6 7 8 7 9 10 9 14 12 9 5 7	5 4 3 4 3 1 7 4 5 5 3 6	2 2 5 4 2 3 0 3 1 0 2 3 2 3	0 1 1 2 2 2 0 0 1 1 1 2 1 2 1	2 0 2 2 4 3 1 3 2 2 4 1	5 6 4 3 2 5 6 5 2 5 2 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	9 5 5 7 7 6 5 2 4 7 10 9	0 0 0 0 0 0 0 0 0 0 0	1 5 2 4 10 6 5 6 8 3 3 4	6 5 8 4 8 8 16 10 6 9 5 5	24 19 21 22 13 16 10 15 16 19 22 22 22	18 9 20 18 10 9 10 17 9 14 15 16	13 7 15 12 7 7 8 12 8 11 10 11	24 16 11 9 0 0 0 0 0 0 0 3 15 13	11 8 8 3 0 0 0 0 0 0 1 9 6	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	19 17 17 12 19 8 21 23 20 18 21 14	0 0 0 1 1 1 6 7 9 5 2 0	13 17 2 0 0 0 0 0 0 0 0 4 6	0 0 0 0 0 1 0 8 7 1 0 0 0 0 7	28 27 14 13 1 0 0 0 5 21 23	0 0 2 1 7 4 8 8 4 0 0 0 0	0 0 2 0 0 0 0 0 0 0 0
							[H=	694	ft.; H					M, A ft.; h		ft.; h	a = 48	8 ft.]											
January February March April May June July August September October November December Year Year	8. 1	NW. NW. NW. E. SW. S. E. N.	27 40 26 32 21 30 23 21 28 18 20 30	SE. S. NW. S.E. SE. SE. S.E. S.E. SE. SE.	0 1 0 1 0 0 0 0 0 0 0 0 0 0	14 14 4 10 10 9 5 5 5 13 17 10	2 4 5 5 10 5 8 9 11 8 6 8	5 6 2 4 7 4 4 7 15 9 3 12	6 6 7 10 17 5 0 8 8 11 5 15	9 8 13 5 5 12 16 18 8 3 4 2	2 0 1 6 2 12 19 8 7 3 7 1	9 3 11 7 3 7 9 5 2 3 3 3		1 0 1 1 0 0 0 1 0 1 1 0 6	12 7 11 10 18 21 4 11 10 14 14 14 9	7 4 10 7 6 8 15 15 13 8 6 4	12 18 10 13 7 1 12 5 7 9 10 18	17 11 7 11 5 6 16 16 9 9 7 16	6 11 4 6 12 10 7 6 6 6 12	3 1 0 0 0 0 0 0 0 0 0 0 0	3 1 0 0 0 0 0 0 0 0 0 0	0 0 0 1 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0	6 6 1 1 0 0 1 2 1 2 2 2 2	1 1 0 0 0 0 0 1 1 1 2 1	4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 1 26 16 16 11 0 0	13 13 0 1 0 0 0 0 0 0 0 6 5	6 2 4 4 8 20 16 15 2 0 2	0 0 0 0 0 0 0 0 0 0 0
					1 1	(I	I = 1.	670 f	t.; H					N. D ft.: h		ft.: h	a = 57	7 ft.]								1			
April May June	10. 1 8. 8 9. 3 9. 2 9. 4 8. 7	NW. NW. NW. SE. SE. NE. NW. NW. NW.		NW. NW. NW. SW. SE. N. W. SE. W. NW. NW.	0 0 0 0 0 0 1 1 1 1 1 0 2 1	4 4 5 7 6 7 6 12 8 11 6 5	8 5 4 6 5 6 15 16 5 4 7 5	12 4 7 8 7 12 9 9 9 4 2 9	2 7 7 6 12 16 14 12 15 6 7 13	2 0 3 7 8 2 4 1 3 5 7 4	4 2 1 3 3 1 2 2 0 5 4 3 3	6 5 10 4 13 4 3 2 5 10 9	16 21 25 19 7 11 9 7 14 16 18 11	8 10 0 0 1 1 1 0 1 1 1 0 1 1 24	8 9 5 11 15 15 23 15 14 15 8 11	8 13 13 9 12 10 8 10 13 10 12 7	15 7 13 10 4 5 0 6 3 6 10 13	9 10 6 5 3 6 2 7 5 3 6 6 6	5 5 6 1 2 3 1 3 5 2 4 2	20 12 9 6 0 0 0 0 0 5 10 12 74	9 10 5 1 0 0 0 0 0 0 3 6 6	0 0 0 0 0 0 0 0 0	4 4 2 0 0 0 0 0 2 4 1 0 3	1 0 0 0 0 0 1 0 0 0 0 0	31 29 7 5 0 0 0 0 0 1 9 17	0 0 0 0 2 8 26 11 3 0 0	31 29 29 16 0 0 0 1 14 26 31	0 0 0 0 3 7 2 3 4 0 0 0	0 0 0 0 0 0 0 0 0 0 0

Table 16.—Annual meteorological summaries for the year ended Dec. 31, 1936—Continued BLOCK ISLAND, R. I.

	1								[φ		10' N			′													
	]	Pressu	ıre				Temp	eratu	re											Moist	ture						
		Ext	remes			M	lean			Ext	reme	S	De poir			elat		Var	or pr	essure	Pre	cipita	ition		Clou	ıdine	ess
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
January February March April May June July August September October November December	29. 88 29. 98 29. 99 29. 89 29. 85 29. 98 30. 06 30. 05 29. 98	30. 39 30. 50 30. 59 30. 27 30. 26 30. 29 30. 44 30. 56 30. 59 30. 68	29. 06 29. 33 29. 47 29. 40 29. 51 29. 69 29. 35 29. 21 29. 31 29. 44	39. 1 41. 7 53. 6 61. 6 67. 2 67. 3 62. 4 54. 7 42. 4 37. 2	42. 6 46. 2 57. 9 66. 4 71. 0 72. 2 65. 9 58. 2 44. 4 39. 8	26. 8 39. 4 42. 9 53. 2 62. 2 66. 3 67. 8 62. 9 54. 8 43. 1 39. 7	30. 5 45. 8 48. 4 60. 5 68. 3 73. 7 74. 9 68. 3 60. 5 49. 8 45. 2	20. 0 34. 6 37. 8 48. 1 57. 9 62. 2 63. 2 58. 6 49. 9 36. 4 32. 8	25. 2 40. 2 43. 1 54. 3 63. 1 68. 0 69. 0 63. 4 55. 2 43. 1 39. 0	61 61 72 76 85 82 81 70 65 56	9 7 21 31 40 53 59 58 49 29 17 16	35 36 47 58 62 63 58 49 35 34	19 38 38 49 59 63 64 58 51 36 34	19 35 37 48 58 63 64 58 49 36 34	% 81 75 87 81 79 87 86 88 85 80 76 86	83 74 74 78 77 78 77 77 72 80	% 75 72 85 82 84 86 90 88 86 81 77 81	In. 0. 136 . 108 . 213 . 220 . 331 . 479 . 571 . 590 . 490 . 370 . 226 . 205	. 115	. 210 . 228 . 340 . 478 . 581 . 598 . 504 . 367 . 239	3. 43 6. 50 2. 53 1. 18 3. 50 1. 34 1. 11 5. 07 2. 08 1. 44	. 78 1. 81 . 69 . 45	2.6	5. 4 5. 9 6. 4 3. 7 4. 5 5. 5 6. 2 5. 1 6. 1	5. 2 5. 9 5. 7 3. 4 5. 2 4. 2 5. 1 5. 9 5. 2 5. 6	5. 2 5. 5 6. 9 3. 6 6. 1 4. 9 6. 1	6. 0 6. 4 6. 3 4. 6 6. 6 5. 2 5. 7 6. 4 5. 5 6. 0
	-0.00	30.00	20.00	10.0	51. 9	49. 2	55. 1	43.9	49. 5	85 BOI	7		44	44	83	77	82	. 328	. 343	. 334	43. 09	4. 18	14.0	5. 7	5. 3	5. 4	6. 0
	1								[φ=4		ISE, 'N.;				V.J												
January February March April May June July August September October November December	27. 25 27. 48 27. 21	27. 54 27. 77 27. 66	26. 85 26. 93 26. 66	29. 6 23. 9 33. 4 44. 5 52. 0 57. 7 64. 4 62. 5 49. 7 43. 4 29. 1 31. 3	34. 0 32. 0 44. 0 61. 0 70. 0 76. 0 85. 6 84. 0 70. 9 65. 6 44. 8 38. 8	32. 5 47. 3 63. 9 73. 9 79. 5 90. 9 87. 6 74. 0 65. 0 43. 9 38. 2	37. 5 36. 8 50. 3 65. 9 76. 4 82. 3 93. 5 89. 9 76. 3 69. 0 42. 2 64. 1	25. 6 19. 9 30. 1 42. 3 49. 2 56. 0 63. 1 60. 1 47. 6 40. 9 25. 8 28. 1 40. 7	31. 6 28. 4 40. 2 54. 1 62. 8 75. 0 62. 0 55. 0 37. 4 35. 2	55 57 68 88 95 104 100 90 85 59 56	4 -3 19 11 35 47 54 48 34 30 18 16 -3	26 35 39 47 48 46 36	26 21 26 34 39 46 51 47 37 33 21 27	45 38 35 23 27	59 61 77	52 39 34 39 32 28 30 30	65 42 34 28 33 25 25 28 33 43 65	. 107 . 141 . 212 . 244 . 329 . 341 . 321 . 220 . 169 . 097 . 135	0. 144 . 118 . 144 . 205 . 244 . 326 . 382 . 329 . 226 . 189 . 113 . 145	0. 140 . 125 . 135 . 187 . 220 . 305 . 343 . 318 . 237 . 205 . 123 . 149	2. 13 2. 26 . 73 . 70 . 69 1. 59 . 41 . 38 . 07 . 04 . 01 . 78	. 29 . 31 . 36 . 76 . 17 . 28 . 07 . 02 . 01	13. 2 4. 8 T T .0 .0 .0 .0 .0 T 2. 6	5. 4 5. 1 3. 6 4. 8 2. 6 3. 3 2. 3 2. 6 1. 9 6. 5	1. 9 1. 9 2. 6 8. 1	2. 4. 4. 0	8. 4 8. 7 6. 7 5. 4 4. 4 3. 3 2. 8 1. 9 2. 7 3. 2 7. 7
											ron				7		1_										_
February 3 March 2 April 2 May 2 June 2 June 2 August 2 September 3 October 3 November 2 December 3	29. 89 30 29. 95 30 29. 95 30 29. 87 30 29. 83 30 29. 97 30 0. 06 30 0. 04 30 9. 96 30	0. 46 2 0. 39 2 0. 41 2 0. 60 2 0. 30 2 0. 30 2 20. 26 2 0. 28 2 0. 28 2 0. 59 2 0. 64 2 0. 77 2 0. 77 2 0. 77 2	9. 30 9. 03 9. 35 9. 41 9. 39 9. 43 9. 64 9. 58 9. 16 9. 25 9. 32 3	19. 4 38. 4 42. 1 57. 7 65. 4 68. 5 68. 0 59. 9 50. 8 36. 5	25. 8 44. 4 48. 8 65. 5 70. 4 76. 7 74. 8 66. 6 59. 4 42. 5	24. 4 41. 3 45. 9 59. 7 65. 9 71. 4 68. 8 61. 7 53. 7 63. 9 44. 3 64. 4	30, 1 49, 1 52, 7 71, 1 74, 1 80, 0 78, 0 70, 0 52, 8 47, 5 32, 9	34, 4 37, 8 50, 2 58, 2 61, 4 55, 2 46, 1 31, 5		54 46 70 80 91 85 98 94 90 79 75 59	4 4 15 29 34 52 57 54 41 25 13	17 10 32 32 45 55 59 60 53 43 28 27	19 14 33 32 46 55 59 59 59 53 44 427 228 228	19 12 32 33 34 65 55 60 60 64 74 13 72 88 77	75 66 8 66 8 69 8 64 8 71 6 72 8 78 6 75 5 70 5	59 8 57 6 51 6 51 7 57 7 56 7 76 7 76 7 76 7 76 8 66 8 77 8 78 8	58	079 191 192 316 442 501 535 413 300 173 161	198 328 441 515 501 426 313 168 165	. 084 . 195 . 201 . 330 . 447 . 525 . 535 . 444 . 308	3. 66 6. 40 3. 54 1. 70 2. 37 1. 04 5. 15 3. 79 2. 67 1. 33 8. 19	1. 48 1. 78 1. 20 . 95 1. 44 . 48 2. 09 3. 31 1. 64 . 50	.0	4. 9 6. 0 6. 1 3. 9 5. 9 5. 4 4. 7 5. 6 4. 8 5. 8 6. 7	5. 0 6. 1 7. 2 4. 8 6. 3 5. 7 5. 4 6. 6 5. 9 4. 8 6. 8	4. 7 5. 3 6. 6 5. 2 6. 1 5. 6 5. 3 5. 9 3. 2 5. 6	5 0 6. 2 5. 9 5. 4 6. 3 5. 1 5. 5 6. 8
									BRO [φ=25																		_
January 29 February 29 March 29	9. 94 30 9. 91 30 9. 82 30	32 29	. 46 5	3. 1 6	2.815	69.7   6	5.8 4 7.1 4 7.3 6	9. 1   5	7. 4	83	32 5	0 4	9 5	1 9	0 6	7 7 9 8	7 9. 3	395 0. 386 .	378 0. 413 .	401 0 443 1	0.41 0	. 18 0	0.0	6. 1	8. 1 4	1.9	6. 0

<sup>&</sup>lt;sup>1</sup> Observations taken at airport.

BLOCK ISLAND, R. I.

	1						[]	H=3	5 ft.;					ft.; l		ft.;	$h_a = 4$	6 ft.											
						1	Wind	1												ı	Juml	ber o	of da	ys					
		Bys	elf-re	gister		Nu	ımbe	rofv	winds	s, 8 a	. m.	and:	8 p.	m.				Pre itat		Sr	ow		F	og	mı	axi- im np.	ure 32°		ec-
Month	Average hourly velocity	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	T or more	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperature or below	Thunderstorm	Aurora
January February March April May June July August September October November December	15. 5 16. 2 15. 3 13. 9 12. 0 13. 1 14. 4 15. 2 18. 7	W. W. S. W. SW. SW. SW. S. NW. S. N. S. SW. SW. S.	Mi. 54 49 43 39 33 38 36 34 58 55 51 44		177 111 77 63 31 11 22 33 66 77 10	5 2 3 5 7 5	3 3 5 4 2 9 6 10 10 2 4 4 4	7	5 3 12 2 0 4 5 9 3 6 0 4 5 9	4 4 19 11 13 9 10 12 16 8 3	3 1 5 10 22 16 24 18 17 10 15 8	9 15 11 7 2 5 3 7 9	21 9 5 7 8 3 8 2 4 10 18 12	0 0 0 1 0 0 0 0 0 0 2 0 0 4	7 10 7 6 14 7 11 7 6 10 8 8	10 7 11 11 12 11 12 17 11 9 10 6	12 13 13 5 12 8 7 13 12 12 12 12	14 12 15 13 8 10 6 9 8 9 8 15	10 11 11 6 6 5 6 7 7	4 5 3 0 0 0 0 0 0 0 0 2 1	3 5 3 0 0 0 0 0 0 0 0 0 0 0	0 1 0 0 0 0 0 0 0	5 9 19 12 14 18 15 18 16 13 8 11	7 13 7 13 7 13 7 7 6 5 1	10 17 1 0 0 0 0 0 0 0 0 2 0	0 0 0 0 0 0 0 0 0 0	25 8 2 0 0 0 0 0 1 13 11	1 8 7 1 0 0	0 0 0 0 0 0 0 0 0 0
	,					ſ	H=9	705	ft · I					AH(		79 ft	.; h <sub>a</sub>	- 27	f+ 1					, ,					_
January	6. 3	SE.	21	SE.	0	3	2	1	31		1,738		16	1		3		19	-	14	10	0	-		0		00		
February March April May June July August September October November December Year	5. 4 6. 4 6. 3 6. 4 5. 5 5. 2 5. 0 4. 8 4. 0 5. 0	SE. SE. NW. NW. SE. NW. SE. SE.	24 24 26 22 21 24 25 23 18 19 23	N. S. S. S. S. N. S.	000000000000000000000000000000000000000	4 7 7 4 9 5 9 11 4 3 7	1 1 2 1 3 0 0 1 0 0 2 1	0 5 3 3 4 4 6 1 4 2 3	22 19 21 12 16 17 12 12 18 11 29	2 2 3 3 3 1 6 3 3 1 1 2	3 0 1 3 2 0 3 0 0 0	1	14 20 18 27 18 24 18 22 25 27	6 5 3 1 4 2 4 3 0 4 3	2 1 6 9 13 15 18 19 21 18 4	3 12 12 11 6 8 9 6 12 9 5	25 13 9 7 9 5 3 3 1 3 22	14 11 6 3 10 4 4 1 2 1 9	13 7 5 3 6 4 2 1 0 0 4	17 10 1 1 0 0 0 0 0 2 6	13 8 0 1 0 0 0 0 0 1 2	0 0 0 0 0 0 0 0 3	5 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1	0.	9 11 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 3 8 22 18 1 0 0	26 22 4 0 0 0 0 0 0 1 28 24	0 1 0 1 1 8 3 4 1 0 0	0 0 0 0 0 1 0 0 0 0 0 0
2000	0. 1													[ASS										1			124	10	
			1 1		1 1				ft.; ]		- 1		1		1	t.; h	a=50	-										1	
and of the same of	10. 7 12. 3 11. 2 10. 0 9. 1 8. 7 9. 8 10. 0 11. 3 11. 0	W. W. E. SW. SW. SW. SW. NW.	40 37 31 36 34 28 34 27 39 38 31 37	NE. NE. W. S. SW. NW. N. N. SE. NE.	5 3 0 1 1 0 3 3 0 1 1 1 1 1 1 1 1 1 1 1 1	7 10 7 6 8 5 3 7 5 4 4 10 76	3 1 5 4 3 8 12 8 11 2 2 4	2 7 11 3 4 11 6 6 4 2 2 0	1 2 4 2 1 1 5 5 3 2 1 7	6 4 11 9 11 8 6 5 12 18 7 4	8 4 8 11, 15 10 10 14 16 12 14 12 14 12	21 22 8 14 11 10 11 7 4 13 15 7	9 6 9 6 5 9 15 18	0 0 1 0 0 1 0 4 0 0 0 0 0	14 13 9 5 12 6 7 9 4 13 11 8	4 4 7 11 10 10 15 13 15 7 9 5	15 14 9 14 9 9 11 11 10 18	15 9 12 14 8 9 9 11 11 8 9 16	9 5 6 6 10 7 5 8	13 9 5 3 0 0 0 0 0 4 6	7 5 2 0 0 0 0 0 0 0 0 0 2 2 2	0 0 0 0 1 1 0 0 0 0 0	10 9 12 9 6 12 9 12 9 12 9 8 8 12	0 3 6 0 1 5 4 4 3 1 1 1 5	11 17 2 0 0 0 0 0 0 0 0 3 4	0 0 0 0 2 0 3 4 0 0 0	9 1 0 0 0 0 0 0 3 16	0 1 1 6 3 7 8 3 0 0	0 0 0 2 0 1 0 0 0 0 0
							for	-25	f+ · E					E, I			0	s #+ 1											
January February March. April May June. June. August September. October. November. December.	10. 8 12. 2 9. 5 10. 3 9. 8 8. 7 9. 8 9. 8 10. 3	NW. NW. SE. SE. SE. SE. SE. NW. NW. SE.	38 34 32 35 39 26 26 24 31 27 33 30	S. N. N. N. SE. SE. N. S. N. N. SE. N. S. S. S. S. S. S. S. S. S. S. S. S. S.	3 1 2 2 1 0 0 0 0 0 0 1 0	8 12 8 10 5 4 1 4 5 5 10 6	3 3 3 1 2 4 4 6 3 5 3 2	8 7 12 9 11 17 14 23 18 11 9 15	11 14 25 29 32 26 39 17 25 9 10	8 5 7 3 1 1 1 2 2 12	1 0 0 0 0 1 1 0 1 0 1 1 0 2	0 0 0 1 1 1 1 1 4 2	23 16 7 7 9 6 0 5 5 24 23 15	0 0 0 0 1 0 0 0 4 2 1	12 2 8 13 8 19 10 9 5 11 2 9	4 11 12 10 15 10 14 14 18 9 9	15 16 11 7 8 1 7 8 7 11 19 10	10 12 5 6 11 3 9 9 14 8 5 10	4 7 4 3 10 3 7 8 13 6 4 7	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8 11 10 6 2 0 0 0 0 9 3 4	1 3 0 1 1 1 0 0 0 0 0 2 1	0 0 0 0 0 0 0 0	0 0 0 1 1 21 10 22 4 0 0	1 1 0 0 0 0 0 0 0 0 0	1 0 1 1 10 2 4 7 7 0 0	0 0 0 0 0 0 0 0 0 0

76

8 108 138 120 102

12 140

Year\_\_\_\_\_10.5 SE.

46

10 78 39 154 247

<sup>1</sup> Observations taken at airport.

BUFFALO, N. Y.

									[φ	=42°	53′ N	.; λ:	=789	53′	w.j												
	]	Pressu	ıre				Temp	eratu	re											Mois	ture						
		Ext	remes			M	[ean			Ext	reme	3	De poir			elati mid		Vap	or pre	essure	Pr	ecipit	ation		Clou	ıdine	SS
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
January February March April May June July August September October November December	29. 19 29. 03 29. 15 29. 21 29. 10 29. 10 29. 18 29. 24 29. 21 29. 18 29. 34	29, 75 29, 44 29, 52 29, 54 29, 56 29, 65 29, 82 29, 79	28. 28 28. 45 28. 49 28. 68 28. 60 28. 83 28. 86 28. 80 28. 48 28. 56 28. 51	21. 3 16. 0 32. 6 36. 6 51. 6 63. 0 68. 5 67. 2 60. 8 47. 8 33. 0 31. 9	23. 3 18. 8 36. 8 40. 3 54. 1 68. 0 74. 0 72. 6 67. 3 53. 0 36. 4 35. 1 48. 3	23. 7 18. 1 35. 6 39. 2 54. 3 68. 1 73. 9 70. 8 65. 0 52. 6 35. 8 34. 6 47. 6	28. 1 25. 6 41. 5 46. 1 61. 9 73. 4 77. 0 70. 7 58. 5 41. 2 39. 6 53. 5	18. 22 11. 4 28. 5 32. 4 44. 9 57. 3 64. 0 62. 4 56. 2 44. 8 28. 9 28. 0 39. 8	18. 5 35. 0	49 59	-3 -3 -9 22 32 49 53 53 37 24 10 6 -3	0 18 12 27 31 46 55 58 57 53 42 28 26 38	14 29 32 46 56 58 59 55 44 29 27	30	82 81 79	82 80 75 74 75 67 58 64 66 72 75 73	85 81 80 75 65 58 64 70 75 78 80	. 085 . 152 . 182 . 319 . 445 . 484 . 470 . 433 . 289 . 168 . 149	. 091 . 167 . 192 . 315 . 466 . 483 . 517 . 458 . 306 . 177 . 153	In. 0. 116 .091 .175 .201 .322 .445 .480 .483 .443 .312 .175 .167	2. 37 7. 03 1. 78 . 92 1. 08 1. 08 1. 94 2. 91 2. 90 1. 76 1. 74	In. 0.47 7 . 52 8 2.62 8 3.30 8 . 30 8 . 30 1.61 1.56 1.56 1.56	In. 7 20. 0 2 14. 3 38. 5 2. 3 0 0 0 0 0 0 0 0 0 T 9. 7	7. 0 7. 2 8. 4 4. 6 4. 7 3. 1 4. 5 4. 7 6. 8 8. 1 7. 9	7. 4 8. 0 8. 5 4. 7 3. 9 4. 3 5. 2 4. 9 6. 3 7. 5 6. 9	5. 2 6. 7 7. 8 5. 3 4. 6 4. 1 4. 5 4. 4 6. 4 6. 2 6. 6	7. 1 7. 5 8. 1 5. 0
											ING' ' N.; :				.]											1	
January February March April May June July August September October November December	29. 59 3 29. 43 2 29. 50 2 29. 52 3 29. 45 2 29. 42 2 29. 55 2 29. 64 3 29. 58 3 29. 77 3	0. 07   2 9. 98   2 9. 97   2 0. 24   2 9. 87   2 9. 85   2 9. 85   2 0. 06   2 0. 20   2 0. 32   2 0. 32   2	88. 84 88. 60 88. 81 9. 04 88. 98 9. 13 9. 23 9. 08 88. 64 88. 64 88. 70 2	9. 5 33. 0 38. 7 54. 2 62. 8 66. 2 62. 8 56. 2 45. 4 29. 1	43. 7 62. 0 70. 4 74. 0 70. 8 64. 8 51. 3 32. 7	42. 4 58. 7 66. 6 69. 0 67. 0 59. 9 47. 8 31. 7 26. 2	48. 1 67. 7 74. 9 77. 4 75. 5 68. 3 56. 3 38. 9 34. 7	47. 1 54. 2 57. 9 56. 0 49. 3 39. 6 23. 4 16. 6	15. 2 13. 6 36. 6 41. 2 57. 4 64. 6 67. 6 65. 8 58. 8 48. 0 31. 2 25. 6		24 29 42 47 45 30 22 1 -5	31 45 51 57 55 50 39 24 19	32 46 52 57 56 50 40 25 21	30 32 46 52 56 55 51 89 25 81 82 81 82	76   680   675   688   572   576   681   678   6	64 657 6557 6557 6651 6561 772 773 8	73	163 187 319 393 469 434 383 256 140 113	. 069 . 181 . 194 . 336 . 398 . 480 . 450 . 388 . 266 . 149	). 183   . 186   . 332   . 394   . 465   . 440   . 397   . 260   . 150   . 121	3. 46 1. 48 3. 80 3. 48 2. 88 1. 51 3. 67 3. 94 2. 77 4. 75 2. 30 2. 20 6. 24	. 41	16. 3 3. 8 7. 1 T .0 .0 .0 .0	6. 9 6. 2 6. 4 8. 3 7. 8	7. 4 6. 1 6. 2 5. 5 6. 4 6. 4 5. 3 8. 4	4. 8 4. 5 7. 2 6. 8	7. 6 6. 5 6. 9 7. 7 6. 7 5. 9 5. 7 6. 5 5. 9 6. 0 8. 0 7. 5
									$[\phi=3]$					W.	]												
January 2 February 2 March 2 April 2 June 2 July 2 September 2 Soctober 2 November 2 December 2 Year 29	19, 72   30   30   30   30   30   30   30   3	. 09   29 . 89   29 . 96   29 . 76   29 . 78   29 . 78   29 . 88   29 . 13   29 . 13   29	1.02 2 1.16 4 1.04 4 1.33 6 1.16 70 1.38 74 1.25 68 1.34 53 1.39 38 1.39 38 1.30 38	6. 8   3   5   5   6   8   9   5   7   7   8   8   8   1   1   1   1   1   1   1	3. 2 3 7. 4 5 7. 8 5 7. 1 7 4. 9 8 7. 3 8 9. 1 8 9. 1 8 6. 6 4. 3 6 4. 4 4. 9	44. 3   3   6   6   6   6   6   6   6   6	33. 3   4 33. 6   4 31. 3   6 31. 7   7 32. 0   7 44. 0   6 44. 2   3 44. 2   3 44. 2   3 45. 3   4 46. 4   5 46. 5 46. 6   6 46. 7   7 46. 7   7 46. 8   8   8   5 46. 8   8   5 46. 8   8   8   8   8   8   8   8   8   8	22. 7   3   4   5   6   4   5   6   6   8   7   7   7   1   3   6   6   6   6   6   6   6   6   6	55. 0 71. 6 78. 2 132. 6 133. 4 15. 6 0. 0 4. 6 2. 3	66 71 76 84 89 01 05 01 94 81 79 66	-4 2 29 3 26 4 49 5 58 6 62 7	20 2 38 3 4 57 5 60 6 7 60 6 8 6 4 6 9 4 2 3 3	24 2 39 4 42 4 42 7 57 5 60 6 6 6 5 6 9 5 1 1 3 4 3	6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	9 52 44 60 8 47 66 60 66 60 67	7 70 58 61 52 54 45 62 50 62 50 70 69 58 67	0 .13 .23 .44 .44 .45 .55 .50 .66 .33 .1	238 285 81 32 56 82 63 63 91 101 2	157 257 297 474 521 769 646 333 866 89	165 2 268 4 311 3 477 1 526 2 793 2 652 645 3 402 3 201 2	2. 01 3. 04 3. 79 . 72 2. 18 2. 64 . 12 . 57 . 81 . 78 . 06	. 68 1. 45 1. 91 . 99 2. 55 . 86 . 07 2. 01 1. 34	8. 0 T T . 0 . 0 . 0 . 0 . 0 4. 3 T	6. 7 6. 4 5. 7 4. 2 4. 0 5. 3 4. 2 6. 1 6. 1 6. 6 6. 6	5. 7 5. 5 5. 6 5. 2 3. 7 3. 7 4. 5 4. 6 6. 7 5. 7 5. 7 5. 7 5. 8 6 7 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 8 7 8 7 8	7. 4 6. 1 5. 1 5. 1 5. 1 6. 1 6. 1 6. 1 6. 1 6. 1 6. 1 6. 1 6	7. 3 5. 2 5. 5 5. 7 4. 8 3. 7 4. 2 5. 3 6. 6 6. 1
								. [	C. φ=44°		ON, J.; λ=			W.1	·	·	1					!_					_
February 29 March 29 April 29 May 29 June 29 July 29 August 29 October 29 November 29 December 29	. 38 29. . 46 29. . 49 30. . 41 29. . 39 29.	06 28. 94 28. 96 28. 17 29. 81 28. 81 29. 33 29. 97 29. 12 28. 88 28. 88 28. 88 28. 88 28. 88 28.	64 9.30.71 38.000 54.89 63.12 66.62.04 57.44.33 28.35 23.	. 0   17 . 7   38 . 3   44 . 7   63 . 4   70 . 6   74 . 8   71 . 4   67 . 4   51 . 3   33 . 3   28	. 6 13 34 41 41 458 66 65 59 3 47 55 31. 7 25.	1. 2   20 1. 3   42 1. 6   48 1. 7   68 1. 4   75 1. 9   79 1. 2   75 1. 8   71 1. 3   57 1. 3   57 1. 4   35 1. 6   35 1. 6   35	0.9 3 2.7 24 3.0 32 3.2 44 4.2 53 3.3 56 4.2 49 2.2 38 5.5 21 6 14	3. 7 14 3. 3 12 3. 9 33 4. 9 56 4. 2 6 4. 2 6 5. 2 6 5. 2 6 5. 3 6 5. 2 6 5. 3 6 5. 5 6 5 6 5 6 5 6 5 6 5 6 5 6 5 6 5 6 5 6	4. 2 2. 1 4. 3. 8 6. 0. 3 7. 8 8. 0. 8 8. 2 8. 0. 8 8. 0. 8 8. 0. 9 8. 0. 9 8. 0. 9 8. 0. 9 8. 0. 0 8. 0. 0 9. 0 9	12 - 16 - 17 - 17 - 17 - 17 - 17 - 17 - 17 - 18 - 17 - 18 - 18 - 18 - 18 - 18 - 18 - 18 - 18	15 10 11 8 -8 27 21 33 224 46 339 52 445 57 41 55 30 50 14 39 -8 24 15 20	13 12 29 35 50 51 56 55 51 39 26 21	3 13 2 11 9 29 5 35 49 53 57 56 51 40 25 22	94 94 85 80 73 69 73 76	84 777 711 700 622 533 555 577 666 744 73 67	91 82 79 72 64 65 71 74 75 80 86	. 18	56 . 1 99 . 2 27 . 36 0 . 39 10 . 4 11 . 44 17 . 46 11 . 26 44 . 16 77 . 12	881	774 2. 169 2. 218 3. 168 1. 18 4. 176 5. 18 4. 18 5. 18 4. 18 5. 18 5	14 94 50 83 24 73 27 77 1 08 31 70 06	. 83 . 51 . 88 . 71 . 65	5. 1 6 6. 8 6 7 6 7 6 . 0 5 . 0 6 . 0 5 . 5 6 . 3 7 . 3 7	. 6 7 . 6 8 . 0 6 . 2 6 . 3 5 . 0 6 . 2 6 . 7 6 . 6 7	. 9 4 . 8 7 . 3 6 . 9 5 . 4 5 . 6 6 . 0 4 . 8 6 . 6 6	9 6 2 7 8 7	4 4 8 7 8 9

BUFFALO, N. Y.

							[H=	604 f	t.; H	b=76	8 ft.;	h <sub>t</sub> =	243	ft.; h	r = 23	8 ft.;	ha=	280 f	t.]										
							Wind	ì												N	luml	ber (	of da	ys					
		By se	elf-re	gister		Nu	ımbe	rof	winds	s, 8 a	. m.	and a	8 p.	m.				Preditati		Sn	ıow		F	og	Ma mu ten	ım	ure 32°	El	ec-
Month	Average hourly ve-	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over		0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperature or below	Thunderstorm	Aurora
January February March April May June July August September October November December	15. 6 15. 0 14. 6 12. 2 11. 2 13. 0 13. 1 15. 3 18. 5 16. 8	SW. SW. SW. SW. SW. SW. SW.	Mi. 56 70 61 57 47 50 32 43 50 56 54 50 70	SW. W. W. SW. SW. SW. SW. SW.	13 15 10 7 9 5 1 1 4 4 4 11 11 12 105	1 2 0 0 3 6 2 1 0 1	10 4 2 10 8 12 10 7 6	6 6 7 3 3 2 11 13 4 3 5	47 44 22 5 11 13 22 08	8 4 9 9 5 7 4 16 12 16 9 14	17 28 18 18 34 20 20 13 12 9 12 14	15 10 8 14 7 6 12 4 3 13 16 11	1 2 4 9 6 9 3 6 11 13 7	000000000000000000000000000000000000000	2 4 4 2 12 14 14 10 11 3 4 6	10 16 13 10 12 7 9	24 16 19 22 9 6 1 8 9 16 19 16	18 14 9 5 10 10 11 15 10	16 14 13 13 6 6 4 8 8 10 11 6	23 15 14 0 0 0 0 0 0 3 15 10	20 16 11 5 0 0 0 0 1 9 4	0 0 0 0 1 0 0 0 0 0	2 4 9 10 9 1 1 2 3 5 4 10	0 1 1 0 0 0 0 0 0 0 0 0	15 21 5 2 0 0 0 0 0 0 6 5	0 0 0 0 0 0 0 0 0 0 0 0 0	28 27 22 16 1 0 0 0 6 20 22	0 0 2 0 5 4 4 5 4 2 2 0	0 0 0 0 0 0 2 0 0 0 0 0
							H	=398	8 ft.; ]		URL 403 fi					ft.: 1	1.=4	8 ft.1											
January February March March April May June July August September October November December	10. 2 10. 8 10. 7 10. 3 8. 7 6. 9 7. 6 9. 6 11. 5 12. 2 11. 7	S. S. S. W. S. S. S.	34 43 38 38 29 30 26 26 29 35 34 35	S. S. S. S. N. W. S. S.	333330000000000000000000000000000000000	8 12 14 6 3 6 14	0 3 2 1 2 0 1 7 5 3 2		4 18 8 3 6 2 7 3 9 7	6 9 12 19 23 21 18 19 25 23 23 19 217	0 4 3 1 4 6 2 6 1 6 1 0	0 2 5 8 6 5 8 0 1 1 6 1 2 4 4 4	6 4 13 11 15 12 17 10 12 7 16 11 134	000000000000000000000000000000000000000	5 6 7 5 3 7 8 6 4 9 2 4	7 8 6 14 10 14 11 19 8 4 9	20 16 16 19 14 13 9 14 7 14 24 18	16 11 6 11 11 12 15 16	16 8 11 13 10 4 8 9 9 14 10 9	22 15 10 8 1 0 0 0 0 3 17 17	0 0	0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0	4 5 13 10 8 7 6 7 10 15 12 8	6	22 25 5 0 0 0 0 0 0 0 7 13	0 0 0 0 0 0 0 0 0 0 0 0 0	31 29 18 13 3 0 0 0 2 7 20 29 152	7 3	0 1 0 0 0 0 0 0 0 0 0 0
							[H:	=315	ft.; I	∃ <sub>b</sub> =3				ILL. ft.; b		) ft.;	ha=	93 ft.]	l										
January February March April May June July August September October November December	10.3	S. S. S. N. S. S. S. N.	30 30 33 30 40 27 27 18 30 24 26 27	S. S. SW. SE. N.	0 0 2 0 1 0 0 0 0 0 0 0 0 0	13 14 8 9 17 8 4 12 14 14 13	9 3 9 10 16 8 10 8 4 9 10	45 1 1 3 6 0 6	6 9 9 14 1 7 2 5 10 1	10 11 13 9 15 9 17 34 21 13 11 11	9 5 6 9 3 9 16 6 8 11 5	2 5 6 5 2 0 5 1 3 2 3 1	5 7 5 3 2 0	0 0 0 0 2 1 0 3 1 0 0 2 2 2 1 0 0 2 9	4 8 10 10 12 16 11 15 9 11 17 10	12 6 9 8 14 13 5 6 5	20 14 9 14 10 6 6 3 16 14 8 17	10 10 11 10 7 5 7 3 9 9 5 10	7 8 9 8 5 3 5 2 7 7 5 8 74	5 9 2 2 0 0 0 0 0 0 0 3 1	0 0	0 0 0 0 0	3 5 0 1 0 0 0 0 2 3 4 6	0 1	10 12 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 18 19 22 7 0 0 0	0 0 0 0 0 13 12	5 9 1 9 4 2	0 0 0 0 0 0 0 0 0 0
							[H	=406	ft.; ]		AN'. 448 ft				$n_r = 4$	ft.; l	n <sub>a</sub> =6	1 ft.]											
January February March April May June July August September October November December	10. 1	W. W. W. W. W. SW. SW. SW. SW. SW. SW.	37 44 34 30 29 30 25 21 21 32 32 35	W. SW.	1 2 1 0 0 0 0 0 0 0 1 1 1 2 8	3 6 5 8 6 7 5 8 3 6 6	2 3 1 3 6 5 5 3 3 5 10	8 12 9 9 8 7 15 12 9 4 14	2 0 0 3 2 1 1 0	1 1 4 4 2 4 0 9 6 5 3 5	15 25 18 19 19 18 16 15 20 29 21 16	22 19 10 12 17 16 16 8 5 8 7	2 0 5 8 4 2 8 3 3 4 12 3	0 0 0 0 0 0 0 0 0 0 2 0 1 0	2 5 4 3 5 9 8 5 3 4 9	9 7 14 10 18 15 18 15 7 4	20 15 18 20 12 11 5 11 7 13 19 18				14 13 8 8 1 0 0 0 0 2 8 5	0 0 0 0 1 0 0 0 1	8 5 10 9 4 33 4 7 11 5 3 7	0 1 3 0 1 0 3 1 4 0 3 1 1	20 24 7 0 0 0 0 0 0 1 9 13	0 0 0 0 0 0 0 0 0 0 0	22 16 3 0 0 0 1 13 23	0 2 4 7 3 3 3 0 0	1 0 1 0 0 0 2 0 0 0 0 0 0 1 0 0 0 0 0 0

Table 16.—Annual meteorological summaries for the year ended Dec. 31, 1936—Continued

CAPE HENRY, VA.

 $[\phi = 36^{\circ}56' \text{ N.; } \lambda = 76^{\circ}00' \text{ W.}]$ 

										36~50	6′ N.;	λ=	76°0	0′ V	V .] 												_
	F	ressu	re ——			Т	'empe	rature	· · · · · ·											Moist:	ire						
		Extr	emes			M	ean			Extr	remes		Dew			lati nidi		Vapo	or pre	ssure	Pred	eipitat	ion	(	Cloud	lines	S
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
February March March April June July August September October March March May March May March May March Marc	29. 88 30. 05 30. 05 29. 91 29. 89 30. 00 30. 04 30. 08 30. 08 30. 21	30. 53 30. 35 30. 50 30. 57 30. 15 30. 25 30. 29 30. 32 30. 42 30. 56 30. 70	29. 27 29. 18 29. 45 29. 63 29. 55 29. 66 29. 80 29. 14 29. 35 29. 51	33. 7 33. 6 48. 5 53. 1 65. 1 71. 6 77. 3 77. 4 72. 0 63. 5 47. 9 43. 2	57. 1 70. 6 77. 4 83. 0 83. 2 77. 2 68. 8 55. 3 48. 0	36. 7 34. 4 50. 7 53. 5 64. 2 72. 0 77. 1 72. 0 64. 3 50. 8 45. 0 58. 1	74. 0 80. 6 86. 1 85. 8 79. 3 70. 5 57. 5	30. 0 28. 3 43. 0 46. 4 58. 0 65. 5 71. 1 71. 8 67. 7 59. 1 43. 1 39. 2 51. 9	36. 8 35. 4 51. 6 54. 6 66. 0 73. 0 78. 6 78. 8 73. 5 64. 8 50. 3 45. 6	° 72 74 81 88 93 103 97 97 93 81 82 70	12 10 33 37 48 57 62 60 59 41 24 29	29 29 42 43 56 63 70 71 66 57 40 39	30 29 42 42 55 64 70 70 66 57 40 40	30 29 42 45 55 64 71 70 66 57 40 40	% 83 81 81 70 72 76 79 80 80 81 75 85	% 71 74 64 61 60 66 67 66 70 67 59 75 67	78 81 75 75 74 78 82 80 82 78 66 83	1n. 0.177 .169 .284 .289 .448 .584 .740 .758 .636 .498 .271 .248 .425	In. 0. 192 . 175 . 288 . 287 . 443 . 602 . 748 . 749 . 644 . 493 . 274 . 256	. 168 . 279 . 312 . 444 . 612 . 759 . 746 . 646 . 492 . 271 . 257	In. 6. 46 4. 80 3. 82 4. 50 . 44 3. 81 2. 70 1. 03 4. 52 5. 88 1. 69 5. 43 45. 08	1. 46 1. 50 1. 51 . 39 1. 43 1. 12 . 48 3. 78 2. 71 . 59 1. 69	T .0 .0 .0 .0 .0 .0 .0 .0 T	5. 4 6. 1 6. 0 4. 8 3. 1 5. 7 5. 9 5. 0 5. 0 5. 8 6. 5	5. 2 6. 1 5. 5 4. 3 3. 1 4. 4 5. 7 5. 0 4. 9 5. 1 5. 0 6. 5	4. 8 5. 0 5. 2 5. 3 2. 7 5. 2 5. 9 4. 4. 2 4. 1 4. 8 4. 7	5. 9 6. 7 6. 4 5. 3 3. 2 4. 9 6. 3 5. 0 5. 1 4. 7 5. 2 6. 5
											ES C 4' N.;																
July August September October November December	28. 96 28. 88 28. 87 28. 90 28. 92 28. 96 29. 03 29. 00	29. 30 29. 28 29. 26 29. 36 29. 16 29. 37 29. 50 29. 57 29. 38	28. 57	59. 4 62. 1 72. 7 67. 2 58. 5 41. 5 26. 9 22. 5	48. 0 71. 6 75. 2 90. 8 83. 9 71. 8 54. 0 37. 5	7. 8 4. 8 36. 2 47. 4 69. 0 72. 6 87. 6 80. 8 47. 8 32. 8 26. 8 48. 4	11. 9 42. 1 53. 2 75. 9 79. 4 94. 1 87. 5 74. 5 57. 3 39. 8 33. 8	-2. 9 -7. 6 25. 9 32. 2 53. 4 55. 3 66. 3 55. 3 37. 2 23. 0 16. 8 34. 8	6. 0 2. 2 34. 0 42. 7 64. 6 67. 4 80. 2 75. 4 64. 9 47. 2 31. 4 25. 3 45. 1	36 40 71 78 92 96 106 98 92 75 61 55	-29 -24 5 12 39 43 48 50 40 19 6 -9 -29	1 -4 24 29 50 51 59 55 37 23 19	4 0 25 30 50 52 56 58 55 38 26 22 35	5 1 28 32 52 53 57 59 58 38 26 22 36	90 89 82 73 73 69 63 76 90 83 84 86	74 69 62 52 49 47 33 45 59 56 63 73	85 82 71 57 58 52 36 51 74 71 74 80	0.058 .043 .131 .169 .377 .511 .509 .458 .233 .126 .117	.050	. 197 . 407 . 414 . 474 . 521 . 501 . 251 . 142 . 129	1. 44 1. 97 3. 14 2. 34 2. 28 1. 62 . 80 7. 52 8. 26 1. 58 1. 35 1. 67 33. 97	0. 43 . 52 2. 25 2. 12 1. 11 1. 18 . 25 2. 54 2. 99 . 65 . 80 . 69 2. 99	25. 4 1. 6 5. 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0	7. 0 6. 3 6. 4 6. 0 4. 9 3. 7 2. 3 4. 3 4. 7 5. 7 4. 8 5. 7	5. 8 6. 4 5. 7 5. 3 5. 8 5. 1 2. 6 3. 3 3. 6 5. 5 5. 5 6. 2 5. 1	6. 5 6. 8 6. 6 5. 4 4. 5 4. 3 2. 5 4. 8 4. 0 3. 7 4. 0 6. 6 5. 0	6. 0 6. 3 6 1 5. 2 5. 0 4. 6 2. 3 3. 9 4. 3 5. 0 5. 2 6. 4
											LES 7' N.;																
August September. October November. December.	30, 05 29, 88 30, 04 30, 02 29, 90 29, 93 30, 00 29, 99 30, 02 30, 09 30, 14	30, 42 30, 19 30, 39 30, 36 30, 19 30, 16 30, 18 30, 17 30, 32 30, 45 30, 55	29. 36 29. 25 29. 55 29. 62 29. 70 29. 79 29. 80 29. 61 29. 67	44.0 55.9 61.3	52. 3 64. 2 68. 5 77. 7	59. 5 63. 6 72. 7 78. 3 81. 8 81. 1 79. 0 70. 4 57. 5	55. 8 67. 8 72. 0 80. 0 85. 3 90. 6 88. 2 85. 0 77. 2 64. 7 58. 7	66. 1	47. 1 48. 4 59. 9 64. 5 73. 0 78. 8 82. 9 81. 6 78. 8 70. 4 57. 2 52. 2 66. 2	70 75 83 91 93 99 101 96 92 87 80 73	23 24 39 39 62 63 65 68 61 48 30 36 23	39 38 50 52 63 68 72 74 70 61 44 45 56		40 39 50 53 64 70 73 73 71 64 48 47 58	83 81 81 72 75 74 74 80 82 84 75 89	61 60 58 60 61 57 66 64 65 55 73	75 72 73 71 75 76 78 78 80 72 83 76	0. 264 . 248 . 378 . 411 . 575 . 696 . 775 . 829 . 748 . 568 . 331 . 313	. 249 . 372 . 414 . 567	. 256 . 384 . 427 . 607 . 733 . 826 . 825 . 769 . 619 . 364 . 335	2. 54 3. 45 5. 51 2. 20 1. 79 3. 08 3. 42 6. 37 2. 47 5. 55 . 83 2. 99 40. 20	1. 36 4. 07 1. 00 1. 53	.0	5. 1 4. 4	5. 6 5. 5 4. 2 3. 9 4. 4 5. 3 5. 7 6. 4 5. 5 4. 8 7. 5	4. 2 6. 4 4. 7 5. 6 4. 5 4. 0 7. 0	4. 4 5. 8 5. 5 6. 2 5. 1 4. 8
							1				RLO' ' N.;				7.]												
January February March April May June July August September. October November. December.	29. 25 29. 07 29. 24 29. 25 29. 12 29. 14 29. 24 29. 25 29. 28 29. 30 29. 38	29. 67 29. 44 29. 62 29. 68 29. 42 29. 46 29. 49 29. 58 29. 72 29. 85	28. 62 28. 27 28. 67 28. 81 28. 89 29. 00 28. 98 28. 74 28. 84 28. 94	31. 8 34. 1 48. 3 51. 6 65. 8 71. 8 73. 5 68. 8 57. 5 42. 4 40. 3 55. 1	40. 6 43. 9 59. 1 61. 8 80. 0 83. 7 86. 3 84. 9 80. 2 69. 3 55. 1 47. 0 66. 0	40. 5 43. 8 57. 3 61. 4 77. 4 80. 5 82. 1 79. 6 65. 1 52. 5 46. 7 63. 6	46. 4 48. 6 64. 8 67. 6 84. 8 88. 3 91. 3 88. 8 83. 4 72. 7 59. 0 52. 4 70. 7	29. 0 32. 0 45. 1 47. 0 60. 5 66. 6 70. 5 70. 1 65. 4 40. 3 37. 8 51. 6	37. 7 40. 3 55. 0 57. 3 72. 6 77. 4 80. 9 79. 4 74. 4 63. 8 49. 6 45. 1 61. 1	65 76 83 89 93 101 101 95 92 83 78 67	9 11 32 29 50 55 57 60 48 38 22 23	26 28 42 43 53 62 68 69 63 52 35 36 48	28 28 42 42 50 59 65 67 62 52 35 36 47	29 31 41 42 49 59 66 68 64 54 37 38 48	80 79 80 74 64 73 77 86 82 84 75 84 78	62 56 56 54 36 46 52 57 57 56 48 70	61 58 53 38	0. 166 . 167 . 287 . 297 . 413 . 563 . 677 . 707 . 584 . 417 . 225 . 226 . 394	0. 169 . 167 . 285 . 290 . 368 . 508 . 627 . 674 . 577 . 419 . 232 . 229	0. 176 . 184 . 275 . 284 . 356 . 514 . 637 . 617 . 451 . 240 . 243 . 390	10. 39 5. 25 7. 12 9. 01 . 01 3. 20 9. 18 4. 30 5. 46 6. 10 1. 52 5. 53 67. 07	3. 61 1. 68 2. 42 4. 08 .01 1. 79 5. 58 2. 03 2. 67 3. 94 .99 5. 58	4. 7 6. 7 T T .0 .0 .0 .0 .0 .0 .0 T T	4. 6 5. 4 6. 0 6. 0 2. 5 5. 1 6. 3 3. 9 4. 1 5. 4 4. 0 6. 8 5. 0	5. 6 5. 9 6. 2 5. 6 3. 8 4. 1 6. 0 5. 3 5. 6 5. 4 4. 4 7. 2 5. 4	4. 8 5. 1 5. 0 5. 0 3. 6 4. 9 6. 3 6. 0 5. 2 3. 4 4. 7 7. 0	

#### CAPE HENRY, VA.

	1						[	H=1	6 ft.;	H <sub>b</sub> =	=18 f	t.; h	=8 f	ft.; h	=3 1	t.: h	a=54	ft.]											
							Wind	l												1	Numl	oer (	of da	ys					
		Bys	elf-re	gister		Nu	ımbe	rof	winds	s, 8 a	. m.	and	8 p.	m.				Pre		Sı	now		F	og	mt	axi- im	ure 32°		lec- city
Month	Average bourly ve-	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	T or more	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperature or below	Thunderstorm	Aurora
January February March April May June July August September October November December	11. 6 11. 6 11. 1 11. 0 9. 3 10. 4 13. 0 12. 7 13. 8 13. 1	N. SW. SE. SE. SW.	Mi. 51 49 32 39 36 44 31 26 175 37 43 35	N. N. N. N. N. N.W NW.	7 2 1 2 2 2 2 2 2 0 0 4 5 9 4 38	5 14 3 7 7 5 2 3 1 8 10 22 87	12 9 4 7 5 7 7 7 9 9 10 9 7	5 4 7 6 7 9 2 7 14 9 3 6 7 7	7 7 10 12 17 9 10 7 9 11 3 3	7 6 16 10 12 9 9 14 10 6 8 7	5 9 16 9 11 18 12 11 12 14 7	7 4 4 4 3 2 8 5 3 3 8 4 55	14 4 2 5 2 8 6 5 3 3 5 6 6	0 1 0 0 0 0 0 0 0 0 0	9 7 8 12 19 13 7 10 10 13 11 9	7 8 8 10 11 9 13 16 11 9 13 6	15 14 15 8 1 11 5 9 6 16 117	12 13 16 10 3 10 16 8 7 8 6 13	11 13 12 9 1 10 13 5 6 6 5 11	5 6 1 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1		0 0 0 0 0 0 0 0 0	7 4 9 4 6 4 1 0 3 4 1 11	5 6 7 4 4 2 1 0 2 1 0 10	8 7 0 0 0 0 0 0 0 0 0	0 0 0 0 2 5 7 10 0 0 0	21 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 1 2 2 2 2 7 16 5 3 1 0 1	0 0 0 0 0 0 0 0 0 0
<sup>1</sup> Estim	ated.										RL																		
		2 - 777							ft.; I	1							<u> </u>		_										
January February March April May June July August September October November December	6. 9 7. 9 9. 0 8. 6 7. 2 6. 7 6. 2 6. 3 7. 3 7. 9 7. 4	NW. W. N. SE. SE. N. NW. SE.	19 28 27 24 27 21 24 21 28 22 23 25	NW. SW. SW. SW. S. S. NW. NW. NW. SW.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8 11 10 14 9 12 10 11 7 6 4 4 106	7 6 5 3 6 8 3 4 5 5 3 3 3 5 5	0 4 2 5 4 8 12 11 12 5 5 3 71	10 7 11 8 14 14 13 15 22 10 10 23 157	2 4 8 12 4 6 9 4 11 5 7	2 3 8 6 7 7 12 4 1 6 6 6	14 12 7 4 6 3 4 4 4 8 14 10	18 12 14 11 3 4 1 4 2 11 12 5	1 1 1 1 0 1 0 3 0 1 1 1	9 8 8 12 12 12 21 14 17 12 11 8 144	9 8 9 6 6 6 11 8 11 4 7 10 5	13 13 14 12 13 7 2 6 9 12 9 18	13 16 11 7 9 7 7 15 9 7 6 6	10 9 6 7 4 5 11 7 6 4 3	17 4 12 4 0 0 0 0 0 0 8 9	13 16 8 4 0 0 0 0 0 0 4 3	0 0 1 1 0 0 0 1 1 0 0 5	3 0 1 2 2 0 0 1 9 10 1 7	1 0 0 1 1 1 0 0 0 2 2 0 2	27 24 5 4 0 0 0 0 0 7 13	0 0 0 1 6 20 11 1 0 0 0 39	29 26	0 0 2 2 5 7 10 6 3 1 1	0 0 1 0 0 0 0 0 0 0 0 1 0 0
							[]	H=9	ft.; I		IAR 18 ft.					t.; h	a=92	ft.]											
February March A pril May June July August	11. 7 10. 7 9. 8 10. 6 8. 4 9. 8 11. 1 10. 6 10. 8	W. NE. W. SW. E. S. NE. NE. NE. N.	36 30 34 28 32 28 37 40 27 31 27 27	S. W. N.E. E. N.E. N.E. N.E. N.E. N.E. N.E.	1 0 2 0 1 0 1 1 0 0 0 0 0 0	6 10 4 5 5 9 4 7 12 13 9 18	9 11 9 8 17 3 4 8 14 18 14 19	7 7 4 11 10 3 1 4 6 10 5 5	2 2 7 5 2 7 3 9 6 1 4 4 4	10 5 10 3 13 21 10 13 11 4 1 2	7 10 8 18 8 7 24 8 6 8 8 3	9 7 15 3 4 9 11 9 3 3 12 6	12 6 5 7 3 1 5 4 2 5 7 5	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12 10 7 13 15 15 8 7 4 13 13 3	5 2 10 7 8 7 10 14 15 5 6 8	14 17 14 10 8 8 13 10 11 13 11 20	11 14 8 7 5 9 8 13 10 9 5 10	9 9 5 5 4 5 6 10 8 8 7 79	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	15 9 8 5 7 4 1 3 2 8 4 14 80	5 0 2 1 1 1 0 0 0 2 0 4	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 1 1 4 17 8 2 0 0 0 0 33	7 4 0 0 0 0 0 0 0 0 0 0 1 0	1 1 4 4 1 6 10 15 3 4 0 0	0 0 0 0 0 0 0 0 0 0 0
							[H=	=741	ft.; H		IAR 79 <b>f</b> t.					ft.: l	)a=8	6 ft.]											
March	8. 0 8. 6 8. 1 6. 9 7. 3 6. 6 5. 8 6. 1 6. 1 7. 8 7. 1	NE. S. NE. NE. SW. SW. NE. SW. NE.	22	SW. NE. NW. SW. NN. NW. SW. NW. SW. SW.	1 0 0 0 0 0 0 0 0 0	7 5 4 8 7 4 6 8 4 10 5 13	17 18 9 13 13 12 10 10 23 22 14 24 185	3 4 5 3 5 6 2 2 5 3 0 4 4 42	5 4 8 4 8 5 3 8 2 3 4 3 5 7	10 9 12 7 11 10 12 7 13 10 9 5	12 7 9 13 11 18 18 20 4 5 16 6	2 4 10 4 3 4 7 4 0 2 4 2 4 4 2	6 7 4 8 4 1 4 2 3 6 6 3 54	0 0 1 0 0 0 0 0 1 6 1 2 2 2	12 9 8 8 18 10 6 10 10 11 13 8 123	6 6 9 11 10 12 12 14 11 9 8 3	13 14 14 11 3 8 13 7 9 11 9 20	11 15 10 1 6 11 13 8 9 6	13 11 13 9 0 4 11 13 6 5 3 15	4 5 2 1 0 0 0 0 0 0 1 2 1 2	3 4 1 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	21 14 14 9 1 8 7 14 16 13 10 20	11 6 3 1 0 0 1 1 5 3 8 42	3 0 0 0 0 0 0 0 0 0 0	0 0 0 0 8 14 21 15 4 0 0 0	17 15 1 2 0 0 0 0 0 0 7 8	2 0 5 5 0 7 12 12 12 5 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

CHATTANOOGA, TENN.  $[\phi=35^{\circ}04' \text{ N.; } \lambda=85^{\circ}18' \text{ W.}]$ 

	P	ressu	re			Т	empe	rature			: N.;								1	Aoistu	re						
		Extr	emes	<del></del>	_	Me	an			Extr	emes		Dew			lativ nidi		Vapo	or pres	ssure	Prec	ipitat	ion	(	Cloud	liness	3
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	Sa.m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 а. ш.	Noon, local time	8 p. m.	Daylight
May June July August September October November December	29, 11 29, 26 29, 25 29, 12 29, 18 29, 24 29, 24 29, 29 29, 36 29, 37	29. 62 29. 39 29. 59 29. 63 29. 41 29. 42 29. 43 29. 44 29. 56 29. 66 29. 76	28. 71 28. 70 28. 79 28. 91 28. 88 28. 99 29. 03 29. 05 28. 98 29. 01	33. 6 34. 6 48. 8 53. 0 66. 5 74. 7 70. 9 57. 4 44. 0 42. 4 56. 4	41. 4 43. 9 61. 9 63. 9 81. 5 90. 1 87. 3 87. 7 84. 6 70. 7 54. 9 50. 5 68. 2	66. 4 51. 9 49. 7	69. 4 86. 1 94. 2 91. 1 92. 0 87. 9 73. 7 58. 9 54. 7	29. 1 31. 4 46. 1 48. 5 60. 9 69. 2 72. 1 71. 5 67. 4 54. 6 40. 0 39. 8 52. 6	73. 5 81. 7 81. 6 81. 8 77. 6 64. 2 49. 4 47. 2	71 75 81 87 94 102 103 103 95 84 80 69 103	5 14 35 31 52 55 65 61 58 40 20 29	68 68 64 52 36 36	28 29 38 41 52 58 68 66 63 52 36 36 47	28 30 40 39 50 58 68 67 64 54 36 37 48	% 80 79 73 67 62 63 77 80 78 84 73 78 74	% 61 57 46 47 37 36 56 51 58 55 50 60 51	% 62 57 49 45 38 41 63 58 61 64 56 64 55	In. 0. 180 . 177 . 269 . 286 . 409 . 544 . 701 . 688 . 415 . 226 . 393	In. 0. 172 . 176 . 257 . 284 . 390 . 507 . 652 . 583 . 420 . 230 . 226	. 180 . 265 . 258 . 376 . 502 . 702 . 660 . 611 . 435 . 235 . 237	In. 9, 62 5, 64 5, 04 6, 40 2, 06 1, 92 6, 89 3, 70 1, 73 3, 95 1, 90 7, 00 55, 85	1. 89 3. 09 1. 95 . 75 2. 62 1. 79 . 65 1. 30 1. 55	T .0 .0 .0 .0	6. 1 6. 2 5. 3 5. 4 3. 0 2. 0 5. 0 4. 7 3. 9 5. 5 6. 5	5. 7 3. 7 3. 1 5. 8 5. 3 5. 4 5. 3 4. 8 7. 0	3.9	5. 6 5. 6 5. 0 5. 3 3. 1 3. 0 5. 5 4. 9 5. 1 4. 9 6. 7 5. 0
											ENI																
February March	23. 69 23. 79 23. 94 23. 98 24. 00 24. 07 24. 08 24. 02 24. 03 24. 08 23. 86	24. 12 24. 15 24. 22 24. 21 24. 27 24. 25 24. 23 24. 30 24. 26 24. 37 24. 16	23. 35 23. 44 23. 55 23. 54 23. 79 23. 90 23. 69 23. 63 23. 55	16. 1 26. 2 33. 6 45. 5 55. 4 60. 7 56. 2 46. 0 36. 5 29. 0 25. 7	52. 5 65. 6 75. 2 83. 4 79. 7 70. 5 53. 6	22. 1 39. 7 49. 3 63. 0 71. 8 81. 0 75. 7 66. 7 47. 0 36. 1 30. 3	35. 6 46. 0 56. 7 69. 6 79. 3 88. 2 83. 0 73. 6 58. 0 49. 3 42. 1	4.8	20. 2 33. 2 43. 0 55. 8 65. 2 72. 4 68. 5 58. 3 44. 4 35. 4 30. 5	63 74 81 95 96 94 85 77 65 60	-10 -34 0 -6 30 39 49 39 28 17 5 -3 -34	8 16 25 36 45 47 45 35 27 17 14	15 12 18 26 34 43 45 43 32 29 19 18 28	14 11 18 29 36 44 43 46 33 29 20 18 28	66 72 67 71 73 70 63 70 66 71 62 62 62	46 51 42 41 36 36 29 32 29 45 36 43 39	60 62 45 51 41 43 31 40 34 57 53 60 . 48	0. 075 . 064 . 091 . 142 . 227 . 302 . 326 . 312 . 206 . 148 . 096 . 080 . 172	. 079 . 100 . 147 . 208 . 288 . 303 . 289 . 190 . 157 . 104	. 099 . 166 . 218 . 297 . 290 . 319 . 200 . 162 . 110 . 096	. 68	. 28 . 53 . 40 1. 37 1. 55 . 90 . 68 . 91 . 26 . 09 . 23	7. 0 13. 5 5. 0 1. 8 . 0 . 0 . 7 5. 8 2. 3	4. 9 5. 9 5. 3 5. 6 5. 5 3. 3 4. 0 2. 2 4. 6	7. 5 6. 4 6. 2 5. 3 4. 4 5. 0 4. 5 2. 6 5. 8 2. 9 5. 3	7. 5 6. 3 6. 7 6. 6 6. 0 3. 7 5. 5 3. 4	5. 2 7. 0 6. 2 5. 8 5. 3 4. 8 2. 7 5. 3 3. 3 4. 9 5. 1
						С	HIC.	AGO,			NIVE					ERV	AI	ORY									
January February March April May June July August. September. October November. December	29. 33 29. 15 29. 32 29. 34 29. 24 29. 23 29. 27 29. 31 29. 32 29. 38 29. 42	29. 66 29. 63 29. 70 29. 72 29. 59 29. 60 29. 73 29. 77 29. 93 29. 82	28. 81 28. 61 28. 89 28. 98 28. 76 28. 86	59. 5 60. 7 72. 6 70. 0 63. 2 49. 1 34. 0	42. 5 47. 0 68. 7 67. 2 80. 4 79. 4 72. 2 57. 0 39. 3	40. 8 44. 2 66. 5 66. 0 77. 9 76. 6 68. 9 55. 2 39. 1 35. 3	23. 5 47. 2 51. 2 73. 5 73. 4 84. 7 83. 0 75. 1 61. 1 44. 8 40. 7	61. 2 46. 1 31. 1 27. 3	15. 2 39. 6 43. 6 64. 4 64. 6 76. 8 75. 0 68. 2 53. 6 38. 0	56 72 82 88 95 102 99 91 81 68 60	-17 -14 14 22 39 48 58 57 46 31 18 1	7 29 31 49 50 60 62 58 42 27 27	11	13 10 28 32 49 50 61 64 60 44 29 28 39	80 78 76 71 70 70 66 78 82 78 73 80 75	72 70 57 58 52 58 55 59 65 62 62 66 61	74 71 61 64 56 59 58 67 73 68 66 74 66	0. 093 . 073 . 169 . 189 . 367 . 368 . 534 . 578 . 493 . 289 . 155 . 156 . 289	. 082 . 159 . 201 . 364 . 371 . 563 . 588 . 525 . 298 . 161	. 164 . 195 . 366 . 376 . 549 . 613 . 530 . 315 . 175 . 164	1. 33 1. 00 2. 54 2. 08 1. 03 . 22 4. 29 8. 97 3. 00 . 90	37 .39 .71 .94 .51 .10 1.41 2.69 1.86 .62	4.8 .0 .0 .0 .0 .0 .0	5. 2 5. 3 3. 5 4. 8 5. 3 6. 0 6. 3 6. 5	6. 9 6. 6 7. 3 4. 8 4. 6 2. 9 4. 5 5. 3 5. 8 6. 0 6. 0	6. 1 4. 7 6. 7 5. 6 4. 1 2. 9 3. 5 4. 7 4. 2 5. 5	5. 2 5. 7 5. 8 6. 0
											INN. 9' N.;																
February March April	29. 41 29. 22 29. 37 29. 41 29. 26 29. 38 29. 34 29. 37 29. 42 29. 46 29. 52	29. 74 29. 58 29. 82 29. 77 29. 54 29. 71 29. 62 29. 66 29. 76 29. 90 29. 94	28. 83 28. 78 29. 05 28. 86 29. 03 29. 11 29. 09 28. 98 28. 99	44. 2 61. 1 68. 0 74. 8 72. 9	51. 0 52. 9 75. 5 82. 9 89. 4 86. 2 78. 6 61. 5 44. 3	30. 0 50. 1 52. 4 70. 7 78. 3 84. 5 82. 0 73. 8 58. 1 41. 0	36. 0 57. 6 58. 5 78. 9 86. 8 93. 1 91. 2 81. 9 66. 4 48. 8	36. 0 39. 9 54. 8 61. 5 70. 3 69. 0 61. 0 46. 8	26. 8 46. 8 49. 2 66. 8 74. 2 81. 7 80. 1 71. 4 56. 6 40. 1 37. 7	67 78 79 91 98 106 103 94 80 72 62	-16 -8 19 23 39 50 57 58 44 26 20 16 -16	16 33 36 51 55 64 64 59 46 30 28	36 37 52 55 61 64 60 48	18 20 35 38 52 54 61 62 59 48 31 31 42	89 83	74 62 58 58 46 41 42 50 56 64 60 67	69 66 58 61 52 46 48 54 62 70 67 72 60	. 112 . 195 . 227 . 391 . 441 . 617 . 618 . 510 . 337	. 128 . 222 . 236 . 412 . 452 . 568 . 605 . 536 . 360 . 185	. 211 . 252 . 397 . 432 . 561 . 578 . 509 . 358 . 181 . 188	2. 55 3. 11 1. 04 . 80 . 84 4. 32 3. 71 4. 45 3. 95	. 78 . 67 1. 37 . 59 . 48 . 2. 02 1. 57 1. 93 1. 71	7.55 1.22 .00 .00 .00 .00 .00 .00 .00 .00 .00	6. 9 7. 1 2. 8 3. 1 4. 6 4. 9 4. 7 5. 3 5. 6	6. 2 5. 7 6. 9 3. 7 5. 2 4. 1 5. 4 4. 4 6. 3 4. 7 6. 3	6. 4 6. 4 7. 2 4. 5 4. 6 5. 8 5. 3 4. 9 5. 5 4. 0 5. 0	6. 4 6. 9 3. 8 4. 4 4. 6 5. 3 4. 9 6. 2 5. 1 6. 5

<sup>&</sup>lt;sup>1</sup> Observations taken at airport.

CHATTANOOGA, TENN.

 $[\mathbf{H}\!=\!689\ \mathrm{ft.};\ \mathbf{H_b}\!=\!762\ \mathrm{ft.};\ \mathbf{h_t}\!=\!71\ \mathrm{ft.};\ \mathbf{h_t}\!=\!64\ \mathrm{ft.};\ \mathbf{h_a}\!=\!214\ \mathrm{ft.}]$ 

									201, 2		70210	., Ц	-11	16., 1	11-0	4 It.;	II a =	214 [											
						ł	Wind	i 												1	Vuml	ber 1	of da	ys			1	1	
		Bys	elf-re	gister		Nu	ımbe	r of	wind	s, 8 a	. m.	and	8 p.	m.				Pre itat		Sr	ow		F	og	Ma mu ten		ure 32°		lec- city
Month	Average hourly velocity	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	T or more	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperature or below	Thunderstorm	Aurora
January February March April May June July August September October November December Year	Mi. 8. 4 8. 4 9. 4 6. 3 7. 5 7. 6 6. 1 6. 3 6. 8 8. 7 7. 7 7. 7	W. NE. W. W. W. W. SE. NE. W.	Mi. 34 27 38 38 24 31 30 33 24 24 29 24 38	W. SE. NW. SW. NW. W. NW. NW. NW. NW. NW. SW.	2 0 2 1 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0	5 8 9 3	8 17 9 8 10 5 4 3 9 11 8 14 106	1 2 3 2 3 5 3 5 6 6 5 44	7 5 7 14 7 9 3 12 12 10 4 13 103	9 8 9 5 6 5 1 8 8 3 6 7	3 1 5 3 4 11 8 4 3 6 1 52	10 10	12 7 9 6 2 5 3 2 7 10 5 77	3 1 6 4 5 2 4 8 9 5 0 3 50	10 11 10 11 18 18 7 11 13 11 13 5	10 6 12 10 11 11 16 15 12 10 6 11	12 9 9 2 1	16 11 12 8 4 9 11 8 8 9 8 17	15 11 9 8 3 5 10 6 6 7 7 14 101	6 6 2 3 0 0 0 0 0 0 0 2 1 1 20	4 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1	2 3 4 0 0 1 3 4 5 3 1 2 28	1 1 0 0 0 0 0 1 1 1 2 1 0 8	7 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 7 24 19 20 12 0 0 0 82	16 16 0 3 0 0 0 0 0 0 0 5 5 5	2 1 4 3 4 9 11 8 4 1 0 1 48	0 0 0 0 0 0 0 0 0 0 0
						[	H=6	3,139	ft.; E		HEY 5,094					5 ft.;	ha=	:39 ft	.]										
January February March April May June July August September October November December Year	16. 3 16. 9 13. 3 12. 0 11. 4 9. 3 9. 9 10. 9 11. 6 13. 8 13. 2	NW. W. NW. SE. NW. NW. NW. NW. NW.	54 49 49 37 45 51 47 28 39 37 44 50 54	NW. NW. NW. NW. W. W. NW. NW. NW.	16 16 15 10 4 3 1 0 2 4 8 11 90	7 6 8 5 6 5 3 5 12 12 7 6 82	1 2 6 4 4 5 2 4 3 6 1 4 4 2	0 3 1 3 2 3 3 0 0 2 0 0 2	0 0 1 4 13 3 10 6 4 1 2 3 4 7	5 8 4 8 10 15 2 7 11 10 4 7	9 12 10 3 7 6 7 7 3 7 6 11 88	16 18 14 11 6 11 12 16 12 10 19 16	23 9 17 21 14 12 22 16 12 16 20 13	1 0 1 1 0 0 0 1 1 1 0 0 7	10 0 6 7 6 8 9 11 22 11 15 10	12 17 12 10 14 14 16 15 3 10 12 14 14 14	9 12 13 13 11 8 6 5 5 10 3 7	9 11 11 10 11 11 7 10 5 9 6 6 6	2 3 10 8 8 6 5 4 6 2 4 64	16 16 16 7 1 0 0 0 2 7 7 7 13 85	9 11 11 4 1 0 0 0 2 5 6 54	0 0 0 2 3 1 2 0 1 1 0 0 1	3 2 3 8 5 3 3 3 1 7 4 9 51	0 0 1 3 4 1 2 2 0 3 3 5	8 11 4 3 0 0 0 0 0 0 3 5 5 5	0 0 0 0 0 0 0 18 7 0 0 0 0 3 18 7	30 28 30 10 1 0 0 0 3 17 29 31 179	0 0 7 6 9 7 7 7 3 1 0 0 40	0 0 0 0 0 0 1 0 0 0 0 0 0
						(										ERV t.; h													
April May June July August September	11. 9 11. 5 10. 7 9. 7 9. 8 7. 1 9. 2 9. 3 10. 3 12. 1	W. W. W. NE. SW. NE. S. S. S. S. S. SW. SW. SW.	27 35	NW. W. SE. NW. SW. NE. NW. NSW. SW. SW.	0 1 2 1 0 0 0 1 1 1 0 0 1 7	2 6 4 6 2 14 6 4 4 3 5 3 5 9	5 7 7 9 10 15 22 11 8 6 5 2	4 7 3 12 3 6 10 11 7 2 4 3 72	9 5 9 5 8 9 8 12 3 3 8 8	3 6 8 8 15 5 2 12 13 20 7 15	12 4 3 5 14 4 6 6 7 6 11 12 90	11	7 6 11 13 3 4 4 5 11 14 9	0 0 0 1 0 0 0 0 0 0 0 0	9 7 7 5 12 13 17 16 13 12 9 11	6 4 13 12 9 8 12 8 12 8 5 4 7 4	16 18 11 13 10 9 2 7 12 15 14 16 143	12 10 12 13 11 9 5 15 14 10 5 8 124	9 8 8 10 6 5 2 11 11 6 3 6 85	20 18 9 9 0 0 0 0 1 9 5 71	11 10 3 5 0 0 0 0 0 0 0 2 2 2	0 0 1 0 0 0 0 0 0 0 0	4 3 0 6 5 2 1 5 4 2 4 4 41	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 3 5 5 5	18 21 1 3 0 0 0 0 0 0 0 4 3 50	0 0 0 0 0 2 9 6 3 0 0 0	29 27 14 10 0 0 0 0 0 2 19 22 123	1 1 4 3 7 5 4 13 6 3 0 0 0 47	0 0 0 0 0 0 0 0 0 0
							[H=	= 553	ft.; E		NCI 327 ft					ft.; h	1a=5	1 ft.]											
February March April May June July August September October November December	8. 9 9. 5 9. 0 6. 5 7. 0 6. 7 6. 2 6. 5 6. 5 6. 5 7. 6	SW. W. S. W. SS. N. SW. SS. SS. SS. SSW.	34 29 30 22 26 21 28 21 24 24 24	SW. SW. N. W. SW. W. SW. SW. SW. SE.	0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5 6 8 5 16 17 6 4 5 7 5 6 90	3 9 6 8 8 10 12 11 16 9 7 108	6 4 5 5 3 9 2 7 2 3 1 7 54	3 7 1 7 3 0 5 7 8 4 1 9 55	11 9 15 8 17 12 4 6 13 15 5 15	17 9 13 8 8 8 6 23 20 11 15 19 8 157	0	4 2 8 6 4 4 2 4 3 4 10 10 61	0 0 0 0 1 0 0 0 0 0 0 1 0 0 0 2	4 8 7 6 19 15 14 9 11 9 12 10 124	7 6 9 6 4 9 10 15 11 8 7 3	20 15 15 18 8 6 7 7 17 8 14 11 18 147	11 6 7 6 11 11 11 5 11	7 11 8 5 4 3 8 9 10 4 10	10 17 5 0 0 0 0 0 0 0 5 6 48	6 5 4 2 0 0 0 0 0 0 0 0 1 2 20	0 0 1 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0	3 2 1 2 0 0 1 2 2 10 5 11 39	1 1 1 0 0 0 0 0 0 0 5 2 7	11 13 0 1 0 0 0 0 0 0 0 0 2 1 1 28	0 0 0 0 1 12 21 20 9 0 0 63	0 3 18 21	0 0 4 5 8 5 8 16 4 3 2 0	0 0 0 0 0 0 0 0 0 0 0 0 0

<sup>&</sup>lt;sup>1</sup> Observations taken at airport.

Table 16.—Annual meteorological summaries for the year ended Dec. 31, 1936—Continued CLEVELAND, OHIO

[φ=41°30' N.; λ=81°42' W.]

									[φ=	41°30	′ N.;	λ=8	31°42	' W	[.]												_
	P	ressui	e			T	emper	ature											1	Ioistu	ıre						
		Extr	emes			Me	an			Extr	emes		Dew		Rel hun	lativ nidi		Vapo	r pres	ssure	Prec	ipitat	ion	C	Cloud	iness	
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
January February March April June July August September October November December Year Year Pebruary Manuary September Septemb	29. 22 29. 04 29. 19 29. 25 29. 12 29. 14 29. 24 29. 24 29. 24 29. 35	20. 1	28. 25 28. 54 28. 56 28. 77 28. 63 28. 82 28. 95 28. 89 28. 68 28. 67	00.0	68. 4 76. 3 75. 3 72. 0 57. 7 40. 4		30. 7 29. 0 47. 1 52. 5 71. 5 74. 1 81. 8 80. 8 75. 5 61. 4 45. 4 43. 3	58. 3 67. 5 66. 9 60. 4 46. 9 32. 5 29. 5	23. 8 21. 0 39. 5 44. 3 62. 6 66. 2 74. 6 73. 8 68. 0 54. 2 39. 0 36. 4	78 87 90 99 94 90 77 70 64	-10 -5 11 23 39 49 57 56 41 31 15 11	0 19 14 30 32 46 52 57 61 54 42 29 26	15 32 33 48 53 60 62 56 42 30 28	20 17 32 35 48 52 56 60 56 43 30 29	% 86 83 77 75 62 67 63 73 77 72 75 74	76 70 68 56 62 58 64 60 58 68 64	% 82 77 70 67 53 56 50 60 64 64 69 69 65	In. 0. 111 . 097 . 175 . 192 . 329 . 392 . 482 . 550 . 445 . 291 . 169 . 150 . 282	In. 0. 114 . 097 . 187 . 203 . 346 . 416 . 527 . 563 . 474 . 289 . 179 . 160 . 296	. 341 . 407 . 468 . 536 . 460 . 300 . 172 . 169		.72 .74 .49 .96 1.12 1.43 .89 1.21 .53 1.15	10. 1 3. 6 . 0 . 0 . 0 . 0 . 0 . T 14. 3		4. 7 3. 4 5. 1 4. 7 5. 8 7. 6 7. 0	8. 3 6. 5 6. 0 7. 3 4. 1 5. 1 3. 6 4. 3 5. 0 5. 3 6. 3 6. 6 5. 7	8. 4 6. 9 7. 1 7. 8 4. 1 5. 0 3. 2 5. 1 5. 2 6. 2 7. 4 7. 1
											UMI 7' N.;				V.]												
January	29. 24 29. 06 29. 20 29. 20 29. 09 29. 12 29. 13 29. 14 29. 22 29. 33 29. 30	29. 62 29. 43 29. 52 29. 54 29. 36 29. 54 29. 53 29. 65 29. 72 29. 61	28. 86 28. 72 28. 56	15. 1 39. 2 44. 4 62. 4 69. 7 76. 9 75. 2 66. 4 49. 2 34. 3 33. 7	92. 9 77. 8 61. 8 46. 2 41. 8		30. 9 31. 0 60. 1 64. 5 80. 5 88. 8 97. 4 81. 7 65. 7 51. 2 46. 4	11. 8 36. 4 41. 6 58. 9 63. 8 73. 4 72. 8 64. 1 47. 3 30. 4 30. 2	72. 9 56. 5 40. 8 38. 3 56. 0	74 78 90 89 105 111 108 100 82 76 65		11 30 34 54 55 62 60 44 29 28	14 32 35 54 54 59 62 61 47 31 30 41		82 83 71 67 74 62 61 65 82 84 79 80	71 68 46 44 46 39 31 37 61 60 56 64 52		0. 096 . 089 . 173 . 214 . 421 . 452 . 570 . 567 . 537 . 310 . 168 . 166	. 101 . 189 . 232 . 429 . 436 . 518 . 563 . 557 . 340 . 188 . 184		0. 93 1. 40 2. 20 . 63 2. 88 . 27 . 97 1. 34 10. 21 2. 09 1. 48 2. 44 26. 84	1. 23 1. 63 .15 .86 .21 .48 .91 2. 47 .99 1. 24	2.7 T .2 .0 .0 .0 .0 .0 .0 .0 .2 .8	5.8 3.0 4.8 4.0 3.0 2.7 5.7 4.3 2.7 5.7	4. 8 4. 9 4. 2 4. 6 3. 4 2. 1 3. 6 6. 1 5. 2 3. 0 6. 1		5. 6 4. 9 4. 4 4. 3 3. 9 3. 5 2. 3 5. 6 5. 1 3. 2 5. 9
											UME )′ N.;				V.]												
January February March April May June July August September October November December	29. 72 29. 54 29. 70 29. 69 29. 57 29. 68 29. 69 29. 72 29. 74 29. 84	29. 89 30. 05 30. 05 30. 05 30. 10 29. 86 29. 91 29. 91 29. 91 29. 91 30. 04 7 30. 16	0 29. 26 6 29. 35 1 29. 32 2 29. 45 1 29. 44 1 29. 26 6 29. 35	38. 5 51. 6 55. 5 66. 8 73. 1 76. 6 75. 5 71. 0 60. 8 46. 1 44. 4	48. 0 63. 2 65. 6 80. 8 84. 7 87. 8 86. 1 82. 3 72. 7 58. 8 52. 2	47. 9 60. 7 64. 3 78. 0 80. 8 83. 0 81. 1 77. 9 68. 5 55. 1 50. 4	53. 7 68. 8 71. 0 85. 3 89. 8 90. 3 86. 0 76. 2 62. 8 56. 8	35. 7 48. 3 50. 3 62. 4 68. 7 72. 0 71. 8 68. 0 58. 2 43. 7 42. 1	44. 7 58. 6 60. 6 73. 8 79. 2 82. 4 81. 0 67. 2 53. 2 49. 4	76 87 8 89 8 94 2 103 101 97 90 92 2 84 2 80 4 72	58 61 55 43 22	32 44 45 57 64 68 71 66 56 39	31 42 44 53 62 68 69 65 56 38 40	43 44 54 63 67 70 66 57 39 41	72 75 76 85	54 57 57 58 49 68	59 56 52 46 57 62 70 68 58 73	. 193 . 317 . 326 . 473 . 602 . 691 . 752 . 642 . 470 . 257 . 260	. 191 . 295 . 315 . 411 . 560 . 688 . 706 . 626 . 481 . 263 . 271	. 308 . 312 . 432 . 584 . 667 . 734 . 658 . 496 . 270 . 280	4. 30 5. 36 10. 76 . 06 1. 55 7. 10 9. 82 2. 09 4. 72 2. 58	1. 26 1. 44 3. 98 . 06 1. 00 1. 98 2. 95 . 74 2. 23 1. 83 1. 40	3 1.1 T 3 .0 6 .0 .0 .0 .0 .0 .0 .0 .0	5. 7 5. 7 4. 7 3. 5 4. 5 3. 7 3. 9 4. 3 4. 1 7. 3	5. 1 5. 2 5. 1 2. 6 3. 3 4. 5 4. 0 4. 3 4. 1 3. 8 6. 9	4. 9 4. 4 3. 0 4. 2 5. 5 4. 4 3. 3 4. 2 6. 9	5. 6 5. 4 5. 0 3. 1 3. 6 4. 8 4. 3 4. 4 4. 2 4. 3 7. 0
	<u> </u>		1	<u> </u>		I	1	·			UMB 8' N.;		′						1		1		1	1	<u> </u>		
January February March April May June July August September October December Year	29. 20 29. 01 29. 11 29. 22 29. 06 29. 08 29. 14 29. 18 29. 22 29. 24 29. 32	0 29. 52 1 29. 42 7 29. 60 1 29. 65 1 29. 35 3 29. 50 4 29. 46 2 29. 58 4 29. 70	2 28. 60 0 28. 54 1 28. 84 5 28. 66 0 28. 78 6 28. 93 7 28. 90 8 28. 73 4 28. 73 28. 82	19. 6 38. 4 42. 8 40. 6 66. 0 673. 3 71. 8 63. 8 49. 9 34. 6 32. 5	5 26. 6 47. 2 8 49. 5 6 72. 6 79. 3 8 86. 9 8 84. 4 8 77. 7 6 60. 1 6 42. 1 6 39. 9	27. 8 47. 6 50. 6 70. 1 77. 4 84. 5 81. 2 73. 1 57. 4 39. 5 38. 8	33. 1 53. 2 56. 1 76. 5 84. 2 91. 5 88. 1 81. 2 64. 4 45. 8 44. 2	15. 7 34. 5 38. 4 54. 5 59. 9 67. 7 67. 6 60. 4 46. 6 30. 8 29. 7	23. 8 24. 4 43. 8 47. 2 65. 8 72. 0 77. 8 55. 8 38. 3 37. 0	50 4 65 65 76 2 80 94 97 6 106 8 101 8 95 78 6 66 62	-16 -7 18 24 39 50 55 45 29 16	17 14 31 34 49 53 60 63 56 45 28	20 16 34 34 34 35 56 36 36 36 36 36 36 36 36 36 36 36 36 36	19 20 35 37 50 52 57 62 58 47 30	79 75 75 71 67 64 63 74 77 83 76	49 49 63 64 66	69 63 62 51 45 42 54 61 69 68	. 099 . 183 . 209 . 364 . 413 . 523 . 583 . 467 . 316 . 167 . 152	.111 .202 .211 .359 .399 .473 .569 .463 .340 .183	2 . 211 . 240 . 373 . 410 . 483 . 573 . 493 . 344 . 176 . 175	2 2. 87 3. 10 3. 17 3 2. 34 0 2. 23 1. 80 4. 94 3 3. 29 4 3. 41 5 2. 95	1. 25 . 78 1. 11 . 83 1. 12 . 76 2. 16 2. 00 . 96 1. 88 . 58 . 58	3 2.8 1 .2 3 .0 7 .0 6 .0 6 .0 6 .0 9 3.6	6. 5 6 6 . 8 7 . 3 3 . 4 4 . 5 5 . 5 5 . 5 5 . 9	5. 3 6. 6 6. 6 8. 0 4. 6 4. 3 5. 6 5. 7 6 6. 4 6. 3	6. 0 7. 1 4. 5 4. 1 5. 4 4. 5 4. 5 5. 1 3. 9 6. 1	6.3 7.2 4.1 4.1 4.2 4.9 4.4 5.9 6.0 6.3

 $[H=651 \text{ ft.}; H_b=762 \text{ ft.}; h_t=267 \text{ ft.}; h_r=264 \text{ ft.}; h_b=318 \text{ ft.}]$ 

	1						[H=	=651	ft.; E	$I_b = 7$	'62 ft	.; h <sub>t</sub> =	= 267	7 ft.;	h <sub>r</sub> =:	264 ft	.; ha	=318	ſt.]										
						7	Wind	l												N	Vum	ber	of da	ys					
		Bys	elf-re	gister		Nu	mbe	rofv	winds	s, 8 a	. m.	and	8 p.	m,				Preditati		Sn	IOW		F	og	Ma mu ten	ım	ure 32°	Eletric	
Month	Average hourly ve-	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over		0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperature or below	Thunderstorm	Aurora
January February March April May June July August September October November December Year	16. 7 15. 0 12. 8 12. 3 10. 2 12. 2 13. 7 15. 3 18. 3	S. NW. S.	Mi. 43 51 51 54 52 51 51 43 47 54 45 54	W. NW. NW. NW. SW. NW.	111 112 122 3 6 2 5 4 9 14 7	12 13 7 5 6 1 5	3 6 8 6 6 12 12 10 7 3 3 3 79	2 2 5 2 4 7 2 7 10 5 4 2 2	9 13 9 2 4 6 10 10 10 10	12 5 4 8 13 13 10 13 12 18 15 21	20 16 14 8 14 4 5 5 8 10 13 4	8 10 8 12 6 4 8 8 3 3 9 6	6 11 8 4 6 2 5 7 13 7	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 6 4 4 15 7 20 9 11 8 6 5	8 10 4 10 16 7 15 9 8 4 8	22 6 7 4 7 10 15 20 18	16 17 7 4 10 11 10 15 11	9 9 14 14 5 6 4 8 6 6 8 8 8	23 21 10 12 0 0 0 0 0 2 11 7	0 0 0 0 0 0 0 9 3	0 1 0 0 0 0 1 2 0 0 0 0	5 3 7 1 4 2 0 1 0	0 0 0 0 0 0 0	16 16 5 1 0 0 0 0 0 0 4 5	0 0 0 0 0 0 7 4 4 0 0 0 0	26 18 10 0 0 0 0 0 1 16 21	0 0 2 4 4 6 6 9 4 1 0 0	0 0 0 0 0 0 0 0 0 0 0
							(H	=740	) ft.;					, M ft.; l		ft.; l	n <sub>s</sub> =6	4 ft.]											
January February March April May June July August September October November December	9. 0 9. 8 10. 4 9. 7 7. 7 8. 4 7. 5 7. 5 7. 7 7. 9 8. 9 8. 3		25 27 32 26 22 27 26 24 26 24 26 26 27 25	NW. NW. SW. SW. NW. NW. SE. SW. N. W.	0 0 1 0 0 0 0 0 0 0 0 0 0	4 5 3 1 6 2 2 4 5 5	1 5 3 2 3 2 3 1 5 3 1 3 3 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	2 4 1 3 3 4 5 6 3 3 1 5	3 0 6 7 5 6 3 7 3 1 2 4	4 3 1 8 11 3 5 6 9 9 6 9	1 2 5 1 1 6 10 7 4 5 6 5 5	9 8 6 1 5 2 1 0 1 1 6 0	8 3 4 5 2 1 2 2 1 4 3 4 3 4	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	10 12 14 16 17 16 22 17 11 11 19 8	7 8 10 6 12 10 8 10 7 9 5 12 104	14 9 7 8 2 4 1 4 12 11 6 11	8 6 10 8 3 5 6 11 9 2 7	4 4 5 5 7 3 5 5 9 7 2 5 61	16 10 2 6 0 0 0 0 0 0 0 0 3 4 41	8 5 0 3 0 0 0 0 0 0 0 1 2	0 0	1 0 1 0	1 0 0 0 1	15 18 0 1 0 0 0 0 0 0 0 1 1 1	0 0 0 0 0 15 26 25 10 0 0	24 8 6 0 0 0 0 0 2 19 20	0 2 3 6 1 6 5 4 1 1	0 0 0 0 0 0 0 0 0 0 0
							[H	=332	ft.; ]					, S. ft.;		8 ft.;	ha=	91 ft	.]										
January February March April May June July August September October November December	6. 8 7. 0 7. 7 7. 3 6. 6 6. 6 5. 7 7. 3 7. 8 8. 8	NW. NE. SE. NE. SE. NE. NE. NE. NE.	43 21 28 21 17 18 26 27 22 24 24 25	NE.	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	11 6 3 2 3 8 5 8 6 14	10 11 17	3 7 8	3 8 12 10 9 8 15 6 3 7	6 4 14 8 10 7 8 14 5 5 4	9 11 10 7 6 7 23 6 1 1 10 5	5 8 6 9 4 3 8	6 5 11 3 3 5 4 2 6 8 1	0 0 0 0 0 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0	13	3 6 8 8 9 15 15 13 5 8 7	4 3	11 14 8 1 11 11 13 9 8 8 8	10 11 8 1 7 10 9 8 8 5 11	2 3 1 0 0 0 0 0 0 0 0	1 1 0 0 0 0 0 0 0 0	0 0 1 0 0 0 0 0	4 5 5 5 5 3 3 2 5 3 4	1 0	1 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 8 14 21 18 5 0 0 0	12 0 1 0 0 0 0 0 0 0 5 2	4 6 2 7 12 10 6 3	0 0 0 0 0 0 0 0 0 0
							[H=	=724 t	ft.; B					, OH (t.; h		ft.; ]	ha=1	110 ft	.]										
January February March April. May June July. August September October November December	10. 7 11. 4 10. 3	SW. SS. SS. SS. SS. SS. SS. SS. SS. SS.	37 43 41 38 37 35 38 43 29 34 31 31	W. SW. N. SW. SW. N. W. SW. SW. SW. SW. SW. SW. SW. SW. SW.	2 4 3 3 2 2 2 2 2 3 0 0 0 0	9 8 14 18 11 5 8 12 13 7	3 9 8 7 7 11 19 8 10 4 4 4 5	9 7 6 6 6 6 6 5 9 6 7 2 10	3 3 7 2 5	17 10 14 9 20 18 15 27 23 16 16 23	13 12 6 9 5 2 3 2 6 5 9 3 7 5	8	4 0 3 6 1	0 0 0 1 1 0 1 0 1 2 0 0	2 9 7 3 16 13 15 10 14 8 10 9	10 9 12 8 15 12 17 11 10 6	15 15 7 2 4 4 5 13 14	17 13 10 8 5 16 10 15 5 9	9 5 10 8 10 4	12 16 8 7 0 0 0 0 0 6 6 6	6 2 0 0 0 0 0 0 0 2 4	000000000000000000000000000000000000000	4 4 2 0 0 0 1 2 3 1 5	0 0 0 0 0 1	13 15 0 0 0 0 0 0 0 0 0 3 1	0 0 0 0 2 7 17 14 7 0 0 0	26 14 8 0 0 0 0 0 1 1 18 21	6 7 9 10 0 2 1 0	0 0 0 0 0 0 0 0 0 0 0

Table 16.—Annual meteorological summaries for the year ended Dec. 31, 1936—Continued CONCORDIA, KANS.

$6 = 39^{\circ}35'$	N .:	$\lambda = 97^{\circ}41'$	W.I

									[φ=	39°35	' N.;	λ=9	97°4: ——	1′ V	V .J												
	F	ressu:	re			T	'empe	rature												1oistu	ire						
		Extr	emes			Me	ean			Extr	emes		Dew			lati nidi		Vapo	or pres	sure	Pred	eipitat	ion	(	Cloud	lines	8
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
January	28. 60 28. 42 28. 57 28. 54 28. 46 28. 49 28. 48 28. 51 28. 61 28. 73 28. 60	29. 03 28. 84 28. 95 28. 88 28. 80 28. 75 28. 91 29. 13 29. 12 28. 91	27. 96 27. 72 28. 08 28. 05 27. 78 28. 20 28. 21 28. 05 28. 10 28. 13 27. 95	74. 3 64. 7 46. 4 32. 1 30. 8	47. 9 39. 5	20. 3 52. 9 59. 6 73. 1 85. 4 96. 9 92. 9 74. 7 56. 2 44. 5 36. 6	82. 3 64. 7 54. 2	0 13. 7 6. 4 32. 6 39. 6 58. 0 63. 8 74. 0 71. 2 61. 6 43. 7 29. 2 26. 6 43. 4	54. 2 41. 7 35. 4	54 70 79 89 90 109 113 116 100 84 75 63	-2 -14 19 14 42 48 61 58 44 23 15 7	0 14 6 24 30 54 55 57 56 57 38 25 28	10 25 32 55 53 54 55 56 40 26 30	\$\begin{array}{c} 18 \\ 12 \\ 26 \\ 32 \\ 55 \\ 55 \\ 42 \\ 25 \\ 30 \\ 38 \end{array}\$	% 87 87 67 65 78 66 52 58 79 75 74 88	% 71 66 34 43 55 37 26 31 51 49 45 68 48	% 80 72 36 40 56 38 23 31 55 60 47 77 51	In. 0.089 .066 .133 .189 .420 .450 .472 .493 .248 .137 .155	In. 0. 100 . 078 . 136 . 198 . 445 . 421 . 423 . 446 . 462 . 262 . 143 . 171 . 274	. 084 . 140 . 201 . 445 . 454 . 381 . 433 . 461 . 283 . 136 . 172	. 14 . 15 2. 08 2. 86 . 98 . 75 1. 82 4. 56 . 75 T	1. 24 .80 .70 .92 1. 50 .38 T .65	3.0 T 2.5 .0 .0 .0 .0 T T	3. 9 2. 3 4. 0	6. 2 5. 8 4. 2 4. 0 5. 5 3. 5 2. 8 3. 9 5. 3 4. 4 3. 8 5. 9 4. 6	5. 2 5. 3 4. 9 4. 9 5. 4 2. 7 2. 6 3. 5 4. 4 3. 3 2. 3 4. 9 4. 1	4. 9 4. 2 3. 0 4. 9
											CH N.;																
January February March April May June July September October November December	29. 99 29. 88 29. 99 29. 85 29. 92 29. 83 29. 89 30. 01 30. 17 30. 08	30, 42 30, 29 30, 32 30, 13 30, 03 30, 08 30, 11 30, 29 30, 55 30, 43	29. 48 29. 53 29. 42 29. 63 29. 59 29. 67 29. 67 29. 80 29. 77 29. 67	48. 7 62. 8 63. 3 72. 4 79. 1 79. 4 78. 9 77. 1 64. 6 56. 7 55. 6	55. 6 71. 4 71. 7 79. 6 86. 9 86. 4 87. 5 84. 7 75. 8 65. 4 64. 5	53. 7 68. 6 70. 1 77. 1 84. 9 84. 0 84. 6 81. 7 72. 5 62. 4 61. 0	60. 6 74. 5 75. 2 81. 6 89. 0 88. 6 89. 7 86. 0 78. 5 68. 5 67. 0	45.0	52. 8 67. 9 68. 6 76. 2 82. 9 83. 2 83. 6 80. 8 70. 5 61. 2 60. 0	87 95	29 25 52 48 64 71 73 72 61 51 38 39 25	45 44 59 58 69 74 75 74 73 61 50 52 61	59 68 73 74 74 72 60 51 52	49 48 59 60 68 73 75 74 52 52 53 62		68 75 67 66 69 64 67 66 68 61 63 66 67	81 75 72 76 70 74 72 76 72 72 78	. 322 . 516 . 510 . 714 . 828 . 870 . 847 . 819 . 549 . 404 . 416	. 360	. 529 . 547 . 700 . 824 . 860 . 850 . 824 . 580 . 428 . 430	. 34	. 95 1. 46 2. 35 . 91 1. 76 1. 39 . 84 . 25 . 60	.0	5. 2 6. 7 3. 3 4. 5 4. 6 5. 9 4. 7 7. 0	5. 1 8. 2 6. 0 4. 1 6. 2 3. 8 5. 6 5. 0 6. 1 4. 2 6. 9 6. 0 5. 6	4. 3 6. 4 3. 3 5. 3 4. 5 5. 4 3. 6 6. 7 4. 8	5. 3 7. 6 5. 5 4. 4 6. 1 3. 3 5. 2 4. 7 5. 9 4. 2 7. 2 5. 5
									$[\phi =$		LLAS 'N.;				V.J												
January February March April May June July August September October November December	29. 48 29. 34 29. 46 29. 41 29. 39 29. 40 29. 39 29. 51 29. 66 29. 55	29. 96 29. 71 29. 82 29. 63 29. 55 29. 56 29. 56 29. 85 30. 00 29. 86	28, 85 28, 95 28, 93 29, 17 28, 99 29, 17 29, 21 29, 21 29, 25 29, 16 29, 12	33. 4 54. 1 55. 7 66. 6 75. 3 77. 7 72. 1 55. 9 46. 8 44. 4	43, 3 68, 6 70, 3 78, 0 88, 7 88, 1 92, 7 83, 6 67, 4 56, 4 52, 9	47. 2 69. 8 72. 1 77. 8 90. 7 93. 8 82. 8 67. 1 56. 1 54. 8	53. 3 73. 8 76. 4 81. 9 94. 5 92. 7 97. 1 87. 9 71. 6 60. 8 58. 9	30. 7 51. 5 52. 1 65. 7 73. 7 73. 3 76. 9 71. 2 53. 6	42. 0 62. 6 64. 2 73. 8 84. 1 83. 0 79. 6 62. 6 52. 2 50. 3	90 93 89 105 104 110 99 88 83 69	14 10 39 31 61 66 66 67 51 38 29 28	26 41 44 62 64 69 66 67 51 40 39	28 39 43 61 61 66 62 65 50 38 40	29 38 40 61 66 61 64 51 39 41	74 64 67 86 71 82 69 85 85 76 84	55 58 38 41 58 41 50 38 56 58 55 65	51 34 34	0. 163 . 167 . 276 . 321 . 560 . 608 . 714 . 652 . 673 . 388 . 266 . 255	. 186 . 261 . 309 . 542 . 556 . 646 . 572 . 626 . 371 . 256 . 260	. 280 . 539 . 558 . 651 . 552 . 609 . 385 . 267 . 270	28 .90 .59 4.12 T 3.54 .26 10.01 2.89 .74	. 23 . 45 . 40 1. 20 T 1. 77 . 26 6. 17 1. 72 . 27 1. 04	.0 .0 .0 .0 .0 .0 .0 .0	6. 6 3. 0 4. 2 2. 2 5. 7 5. 3 5. 2 5. 8	4. 1 4. 0 7. 1 2. 9 4. 7 3. 6 5. 9 4. 6 5. 1 5. 3	4. 9 4. 5 3. 5 6. 5 2. 3 3. 4 2. 7 5. 3 3. 9 4. 0	5. 9 2. 1 3. 6 2. 6 5. 5 4. 3 4. 5 5. 1
											NPO )′ N.;		•										,		-	·	<u> </u>
January February March April May June July August September October November December Year Market Ma	29. 38 29. 28 29. 27 29. 31 29. 35 29. 47 29. 48	29. 75 29. 61 29. 75 29. 63 29. 80 29. 89 29. 89	29, 00 7 28, 88 1 28, 62 5 29, 00 3 29, 02 9 28, 96 1 28, 86 1 28, 60	40. 0 60. 8 64. 1 75. 4 70. 2 62. 7 47. 2 31. 3 29. 3	13. 8 43. 6 51. 8 73. 7 76. 8 91. 2 84. 7 73. 1 57. 7 40. 3 35. 3	14. 0 44. 3 52. 1 72. 5 77. 3 92. 3 85. 5 71. 3 55. 0 39. 5 33. 9	20. 22 50. 0 57. 0 77. 8 83. 0 97. 1 91. 4 77. 6 62. 3 45. 5 40. 7	31. 5 37. 8 57. 6 59. 9 72. 8 68. 5 60. 8 45. 2 29. 2 25. 2	11. 6 40. 8 47. 4 67. 7 71. 4 85. 0 80. 0 69. 2 53. 8 37. 4 33. 0	55 77 84 91 104 111 105 94 82 67 59	222 15 144 182 422 500 588 577 488 288 177 3	4 27 32 50 52 61 62 58 42 26 24	6 28 32 50 51 59 61 28 28 26	7 29 33 51 55 59 61 60 45 29 26	83 74 72 70 66 62 74 84 82 79	73 70 54 49 45 44 35 47 63 60 60 67	73 57 51 49 48 34 45 70 69 65 72	. 065 . 150 . 194 . 377 . 405 . 551 . 567 . 498 . 280 . 144 . 138	. 070 . 157 . 197 . 375 . 392 . 509 . 545 . 523 . 303 . 160 . 152	. 169 . 214 . 383 . 451 . 514 . 542 . 543 . 313 . 172 . 152	1. 76 1. 25 1. 80 1. 78 2. 32 . 14 3. 85 9. 29 2. 09 1. 64	. 82 . 36 . 62 . 74 . 92 . 08 . 90 2. 28 . 73 1. 51 1, 20	5. 3 .0 .0 .0 .0 .0 .0 .0	5. 5 6 5. 6 5. 5 4. 8 2. 9 3. 5 6. 2 5. 8 3. 7 5. 2	6. 2 6. 0 5. 4 4. 6 3. 4 4. 2 5. 3 5. 1 5. 9	5. 7 6. 3 5. 5 5. 1 5. 2 3. 6 4. 2 5. 1 4. 6 3. 3 4. 9	6. 4 6. 0 5. 8 5. 3 4. 9 3. 6 4. 1 6. 2 5. 7 5. 2 5. 9

							[H=	1,375	ft.;	H <sub>b</sub> =	1,392	ft.;	h <sub>t</sub> =	50 ft.	; h <sub>r</sub> =	42 ft	.; h <sub>a</sub>	= 58	ft.]										
						7	Wind	1												1	Num	ber (	of da	ıys					_
		Bys	elf-re	gister		Nu	mbe	r of	wind	s, 8 a	. m.	and	8 p.	m.				Pre itat		Sr	10W		F	og	Ma mu ten	ım	ure 32°		lec-
Month	Average hourly ve-	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy .	Cloudy	0.01 inch or over	0.04 inch or over	T or more	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperature or below	Thunderstorm	Aurora
January February March March April May June July August September October November December		N. NE. W. S. S. S. S. S. S. S. S. S. S. S. S. S.	Mi. 26 26 32 27 30 26 24 26 35 25 35	NW. NW. NE. SW. N. SW. SW. SW. S. NW. NW.	0 0 1 0 0 0 0 0 0 0 1 0 0 2 2	9 10 10 5 4 1 3 7 10 11 11	9 16 7 13 5 6 6 5 10 11 8 6	10 9 6 7 7 16 7 7 6 1 1 6	5 7 6 3 4 7 3 10 3 0 0 2 5	8 7 13 20 10 12 12 13 13 8 15	6 2 6 3 5 14 23 13 15 13 11 8 119	7 2 14 4 9 1 3 3 2 5 9 6	5 8 5 5 2 2 5 6 9 2 53	1 0 1 2 5 0 2 7 2 3 1 3	12 7 13 16 10 19 21 16 10 15 17 11	9 15 14 7 15 9 8 11 11 11 11 12 12	10 7 4 7 6 2 2 4 9 5 4 8	7 7 7 1 7 7 6 3 10 9 5 0 6 6 6 8	10 7 3 0	9 10 2 2 0 0 0 0 0 1 2 6	0 0 0 0	0 0 0 0 2 0 0 0 0 0 1	2 3 0 4 1 0 0 1 2 0 1 6	0 0 0 0 1 0 0 0 0 0 0 0 2 2	17 20 0 2 0 0 0 0 0 0 1 1 1 2 43	0 0 0 0 1 17 28 24 11 0 0	30 25 19 6 0 0 0 0 6 16 27	0 0 0 4 4 5 2 10 5 2 0 2	0 0 0 0 0 0 0 0 0 0
							[18	[=17	ft.; 1	COR							1.0=78	8 ft.1											
January February March March April May June July August September October November December Year	10. 6 10. 8 12. 7 10. 5 10. 9 10. 9 10. 0 10. 8 9. 6 9. 8	N. SE. SE. SS. N. S.	31 35 34 31 38 49 31 26 35 29 29 32 49	N. E. S. E. E. N.	0 1 1 0 1 1 0 0 0 2 0 0 1 1 7	19 8 7 9 5 3 2 7 19 19 11	4 8 5 9 5 3 1	5 9 6 4 7 6 6 6 7 7	20 26 24 22 17 23 17 6 4 6	16 9 17 11 10 16 30 13 18 9	1 1 2 2 3 2 3 7 1 0 0 2 24	2 1 3 1 1 4 2 6 4 7 4	8 5 1 0 3 2 0 0 3 5 4	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	13 3 10 11 8 20 12 14 9 16 5 13		13 16 10 6 15 4	8 8 5 7 13 7	5 3 7 12 5 5 5 11 2 2	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0 0 1 0 0 0 0 0 0 0 0	12 14 9 2 2 1 0 0 0 5 6 1	10 5 1 0 0	0 0 0 0 0 0 0 0 0	0 0 1 1 0 9 5 12 2 0 0 0	1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 2 7 12 7 10 8 8 1 0 0	0 0 0 0 0 0 0 0 0 0 0
						[	H=	160 ft	.; H				′	rex t.; h		1 ft.;	ha=	227 f	t.]										
	12. 8 13. 0 14. 0 11. 2 11. 2 10. 4 9. 3 10. 7 10. 3 10. 8 10. 5	N. S.E. S.E. S.E. S.E. S.E. S.E. S.E. S.	35 34 68 40 29 29 34 33	NW. NW. NW. NN. NN. NN. SE. SW. N.	0 5 3 3 3 2 3 1 0 0 2 1	15 12 11 12 3 4 4 2 5 11 12 7	2 11 3 5 17 11 5 3 2 4 5 7	5 4 2 8 20 5 7 3 9 7 3 6	12 16 14 17 14 18 23 34 19 19 6 19	6 5 14 9 4 17 14 10 13 4 9 3	1 1 3 5 3 0 6 8 4 3 4 8	10 4 4 2 1 2 2 1 5 9 5 5	11 5 11 2 0 3 0 1 1 3 5 12 7	0 0 0 0 0 0 1 0 0 0 0	15 7 14 17 7 21 17 19 7 16 14 15	8 13 10 5 12 8 10 10 14 5 6 5	8 9 7 8 12 1 4 2 9 10 10 11 91	3 6 4 3 12 0 4 1 7 7 7 8 62	3 1 3 8 0 4 1 7 5 5 8 4 8	3 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0	0 1 0 0 0 0 0 1 0 0 0 1 0 0 0 0 0 0	3 6 1 2 3 1 3 0 0 4 6 6	0 3 0 0 0 0 0 0 0 0 0	2 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 5	0 0 1 2 0 26 24 31 17 0 0 0	11 18 0 1 0 0 0 0 0 0 0 2 2 2	0 2 4 1 13 2 4 1 6 2 2 1	0 0 0 0 0 0 0 0 0 0
							[H=	579 f	t.; H	DAV						ft.; h	1a=10	61 ft.	]										
	10.6 11.7 11.3 9.8 9.5 7.8 8.6 8.6 9.3	NW. NE. NW. SW. NE. SE. NE. SW. NW.	32 40 37 32 46 24 30 32 31 33	NW. W. SW. NW. SE. NE. NE. SW. NW.	1 2 3 2 2 2 0 0 1 0 1	2 7 10 5 3 10 6 4 6 11 6 5	10 17 7 9 10 18 13 10 18 6 8 6	2 1 1 2 3 3 9 6 4 4 3 3 3	5 5 9 11 9 5 4 12 9 4 3 11	3 1 5 8 12 4 4 7 8 9 2 3	5 6 6 6 12 9 16 17 9 15 15 15	12 12 9 5 2 5 2 8	17 8 12 10 8 7 5 4 4 5 14 11	1 1 0 0 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7 9 8 7 10 12 13 14 7 9 11	9 4 11 12 9 9 16 12 9 9 11 8	15 16 12 11 12 9 2 5 14 13 8 14	12 11 10 11 7 8 4 12 14 8 5 6	9 6 8 5 7 1 9 14 4 3 5	21 18 8 5 0 0 0 0 0 2 8 3	12 11 6 5 0 0 0 0 0 2 2 1	0 0 1 0 0 0 0 0 0 0 0	2 3 1 2 1 1 0 5 8 6 4 4	0 3 0 1 1 0 0 0 0 1 2 2	21 23 0 2 0 0 0 0 0 0 0 0 1 5	0 0 0 0 1 7 23 18 4 0 0	30 27 15 10 0 0 0 0 0 3 21 24	0 1 1 2 5 6 5 9 8 4 1 1	0 0 0 1 0 0 0 0 0 0 0 0 0

46 NW. 15 75 i32 41 87 66 i32 90 i05 4 i16 i19 i31 i08 80 65 39 2 37 i0 52 53 i30 43 i

Year .... 9.9 SW.

Table 16.—Annual meteorological summaries for the year ended Dec. 31, 1936—Continued Dayton, Ohio

									[φ=	DAY 39°46	/T01 /N.;				V.]												
	P	ressu	re			Т	emper	rature	;										N	1oistu	ire						
		Extr	emes			Μє	an			Extr	emes		Dew		Rel	lativ nidi		Vapo	r pres	sure	Pred	eipitat	ion		Cloud	liness	3
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
JanuaryFebruaryMarchAprilMayJuneJulyAugustSeptemberOctoberNovemberDecemberYear	28. 92 29. 08 29. 13 28. 98 29. 00 29. 07 29. 06 29. 12 29. 16 29. 26	29. 32 29. 52 29. 50 29. 27 29. 41 29. 36 29. 40 29. 49 29. 62	28. 51 28. 50 28. 75 28. 55 28. 72 28. 84 28. 80 28. 63 28. 68	21. 5 19. 7 39. 5 42. 7 61. 1 66. 8 74. 5 72. 9 65. 1 49. 8 34. 3 33. 0	48. 9 71. 6 78. 7 86. 0 83. 2 75. 6 58. 2 40. 3 38. 7	77. 4 85. 3 80. 9	57. 0 76. 9 84. 4 92. 9 89. 5 80. 8 64. 5 46. 7 43. 8		79. 2 71. 0 55. 6 39. 0	94 77 70 62	-16 -9 19 24 39 50 58 57 45 28 21 16	28	49 52 59 62 58 46 30 30	0	% 85 81 74 71 66 63 62 72 76 88 80 80 75	% 79 66 60 58 46 42 42 50 66 66 67 70 58		In. 0. 112 . 102 . 186 . 210 . 367 . 412 . 534 . 534 . 321 . 170 . 160 . 304	. 113	In.	In. 1, 47 2, 99 2, 94 3, 81 1, 04 , 52 1, 38 4, 50 3, 94 4, 08 3, 36 2, 02 32, 05	1. 28 . 94 1. 51 . 60 . 23 1. 22 2. 22 1. 84 1. 40 1. 97 . 62	5. 5 .8 .0 .0 .0 .0 .0 .0 .0 .7. 3	7. 2 3. 6 4. 2 4. 0 4. 7 4. 9 4. 7 5. 9 6. 0	8. 2 6. 7 6. 4 7. 0 3. 7 4. 9 3. 6 4. 5 4. 9 6. 9 5. 8		7. 5 6. 3 6. 4 7. 1 4. 0 4. 4 4. 0 5. 5 5. 4 6. 3 5. 5
									[φ=	DEI 29°20	RI(				W.]												
January February March April May June July August September October November December	28. 96 28. 88 28. 97 28. 89 28. 85 28. 92 28. 93 28. 89 29. 03 29. 18 29. 06	29, 45 29, 26 29, 38 29, 17 29, 05 29, 10 29, 15 29, 33 29, 58 29, 39	28. 51 28. 42 28. 55 28. 56 28. 56 28. 71 28. 69 28. 60 28. 75 28. 72	44. 0 55. 5 57. 8 66. 9 74. 3 74. 3 74. 8 72. 3 57. 2 49. 5 46. 2	56. 6 70. 3 73. 1 80. 5 87. 9 86. 7 89. 5 79. 5 71. 3 60. 9 59. 5	61. 7 74. 0 78. 2 81. 7 90. 0 87. 2 91. 1 83. 4 71. 1 60. 4	66. 6 77. 3 81. 5 86. 0 93. 3 91. 6 94. 1 86. 6 76. 2 65. 7	36. 6 41. 3 53. 3 56. 5 65. 2 72. 5 72. 7 73. 9 70. 9 55. 3 47. 4 43. 9	54. 0 65. 3 69. 0 75. 6 82. 9 82. 2 84. 0 78. 8 65. 8 56. 6	91 92 91 103 97 104 94 95 86 80	23 22 44 40 60 66 65 66 58 42 35 31	71 68 69 53 45 42	35 45 49 61 65 68 65 66 54 43 44	31 33 44 45 60 62 67 62 65 53 43 43	90 87 84 85	46 48 46 47 53 49 55 45 61 58 54 60 52	42 36 39 35 50 42 53 40 55 58 54 57 47	0. 187 . 230 . 320 . 379 . 573 . 681 . 749 . 680 . 722 . 414 . 312 . 283 . 461	. 227 . 323 . 391 . 541 . 630 . 694 . 618 . 666 . 426 . 300 . 301	. 624 . 418 . 302 . 294	3. 72 4. 18 1. 45 1. 20	. 01 . 83 1. 04 1. 30 3. 64 . 70 . 57 . 98 . 41 . 35	.0	6. 2 5. 4 4. 4 6. 5 4. 9 5. 5 7. 2 5. 0 6. 9 4. 9	5. 6 5. 8 4. 3 6. 2 5. 1 5. 8 4. 1 7. 6 4. 0 7. 8 5. 3	4. 6 5. 5 4. 2 6. 2 3. 9 4. 6 4. 3 5. 2 3. 3 7. 1 3. 8	5. 4 5. 6 4. 0 6. 2 4. 6 5. 3 3. 9 7. 0
										DEN 39°45					w.]												
January—February—March—April—May—June—July—August—September—October—November—December—Year——	24. 52 24. 58 24. 71 24. 74 24. 75 24. 81 24. 83 24. 77 24. 80 24. 66	24. 94 24. 97 24. 98 24. 99 25. 04 25. 02 25. 06 25. 08 25. 20 24. 95	24. 00 24. 12 24. 23 24. 32 24. 30 24. 51 24. 62 24. 41 24. 33 24. 31	18. 5 32. 3 40. 3 51. 5 60. 4 66. 5 63. 6 53. 9 41. 2 32. 4 29. 5	32. 7 47. 5 57. 3 68. 0 79. 2 85. 1 81. 4 70. 7 56. 1 49. 9 43. 7	32. 5 49. 0 58. 5 68. 1 78. 1 83. 6 79. 1 72. 1 54. 5	42, 1 53, 3 62, 6 73, 2 83, 7 89, 9 85, 1 75, 9 61, 4 54, 5 47, 5	11. 6 29. 0 38. 4 49. 4 58. 5 64. 7 62. 1 51. 8 38. 3 29. 1 25. 5	26. 8 41. 2 50. 5 61. 3 71. 1 77. 3 73. 6 63. 8 49. 8 41. 8 36. 5	72 73 77 86 99 100 97 88 81 70 64	4 -25 12 11 33 47 57 57 30 21 4 9	6 17 27 38 45 47 50 38 32 19	19 24 35 41 44 46 34 31 20	11 17 26 36 43 45 47 35 33 22 18	62 63 59 53 64 58 72 58 57	31 34 29 27 33 32 44 36 38	45 34 36 35 31 39 32 51 42 44	. 061 . 096 . 152 . 237 . 301 . 338 . 372 . 237 . 183 . 102 . 083	. 069 . 104 . 138 . 212 . 267 . 300 . 316 . 199 . 173 . 109	. 290 . 312 . 331 . 208 . 190 . 120	1. 95 1. 95 1. 28 1. 36 1. 70 3. 22 2. 89 2. 04	1 .165 1.10 .30 .50 .60 .60 .60 .60 .60 .60 .60 .60 .60 .6	0 .0 1 .0 1 .0 1 16.5 7.3 0 3.7	4. 0 5. 7 5. 8 5. 2 4. 5 2. 3 4. 1 3. 0 4. 9 1. 5 3. 1	5. 8 5. 4 5. 6 5. 3 3. 9 3. 3 3. 8 2. 6 4. 6 2. 8 4. 3	5.8 6.1 6.5 6.6 7.0 6.6 6.1 3.5 3.2 3.4	5. 5 5. 4 5. 7 5. 6 4. 9 4. 1 4. 7 3. 1 5. 0 2. 8 4. 3
										ES 1 =41°3			1														
January February March April May June July August September October November December	29. 19 28. 96 29. 13 29. 03 29. 02 29. 04 29. 07 29. 13 29. 24 29. 20	29. 49 29. 48 29. 46 29. 37 29. 50 29. 32 29. 51 29. 65 29. 73 29. 54	28. 50 28. 39 3 28. 73 28. 61 28. 34 28. 72 28. 70 28. 65 28. 66 28. 66 28. 57	39. 5 61. 0 64. 7 76. 0 70. 5 62. 6 46. 4 30. 2 27. 4	10. 7 45. 0 53. 4 74. 5 78. 6 94. 4 87. 5 75. 4 58. 3 42. 6 34. 5	10. 9 45. 8 54. 5 74. 5 78. 4 95. 6 87. 5 72. 6 54. 2 39. 1 33. 0	51. 6 58. 8 78. 7 83. 3 99. 1 92. 7 79. 5 61. 7 46. 4 39. 1	1 31.0 36.8 57.7 59.6 72.5 68.1 59.5 42.8 26.7 22.2	8. 0 41. 3 47. 8 68. 2 71. 4 85. 8 80. 4 69. 5 52. 2 36. 6 30. 6	48 75 87 92 100 110 108 97 82 72 58	-222 -18 17 12 43 48 56 57 46 23 12 -4 -22	0 27 31 52 54 60 61 58 41 25 24	4 28 30 51 54 56 60 58 41 28 26	31 51 55 55 61 58 42 28 27	86 76 72 74 70 58 74 85 81 82 86	53 44 48 46 28 42 56 55 58 69	78 54 46 47 45 26 44 62 65 64 76	. 052 . 152 . 191 . 399 . 428 . 517 . 555 . 501 . 274 . 141	. 058 . 163 . 190 . 391 . 433 . 448 . 539 . 509 . 284 . 162 . 150	. 392 . 441 . 444 . 557 . 512 . 293 . 153	1. 57 1. 33 1. 48 3. 81 2. 53 8. 50 . 93	55 77 .99 1.36 .22 1.11 1.4 1.4 2.7 33 .33 .65 .66 .66	4. 7 5 . 0 4 . 0 1 . 0 5 . 0 7 . 0 8 . 0 1 . 4	6. 2 6. 6 6. 2 6. 0 7 6. 0 7 6. 0 7 6. 0 7 6. 0 7 6. 0 7 6. 0 7 6. 0 7 6. 0 7 7 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7	6. 1 6. 1 5. 0 5. 1 4. 8 2. 1 4. 8 5. 6 5. 6 7. 4	6. 2 5. 0 5. 2 5. 4 4. 0 4. 0 4. 1 3. 0 5. 4	6. 0 5. 8 5. 4 5. 3 4. 2 2. 0 4. 5 5. 8 5. 0 4. 3 6. 7

	[H=741 ft.; $H_b$ =900 ft.; $h_t$ =6															ft.; l	h a, = 1	63 ft	]										
						7	Vind													N	Juml	ber (	of da	ys					
		By se	elf-reg	gister		Nu	mbe	r of v	vinds	s, 8 a	. m.:	and	8 p.	m.				Preditati		Sn	ow :		F	og	Ma mu ten	ım	ure 32°		lec- city
Month	A verage hourly velocity	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	T or more	6.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperature or below	Thunderstorm	Aurora
January February March March April May June July August September October November December	10. 4 9. 4 7. 7 8. 2 7. 8 7. 4 8. 0 7. 8 9. 6	SW. SW. SW. SW. SW. SW. SW.	Mi. 34 33 36 30 33 37 38 32 27 28 29 38	W. W. SW. SW. SW. SW. SW. SW. SW. SW. SW	1 1 1 1 0 2 1 1 1 1 0 0 0 0	2 4 6 3	2	3 4 5 3	(1) 1 3 2 0 2 0 1 0 1 1 0 2 1 1 0 2	6 3 2 2 2 2 6 5 5 8	(1) 12 9 8 5 9 9 8 14 9 8 10 6	(1) 5 5 4 7 4 1 2 2 0 3 5 4 4 4 2	0 1 3 0 1 0 0 2 1 0	(1) 0 0 0 0 1 0 0 0 0 1 0 0 0 0 0 1 0	2 7 5 5 17 13 15 12 13 10 10 7	9 9 7 9	14 11 17 8 5 5 5 5 8 12 13 15	5 14 8 15 4 11	8 7 13 12 5 3 4 9 7 12 4 9 9 9	13 16 7 6 0 0 0 0 0 6 6 6	7 4 4 2 0 0 0 0 0 0 1 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	0 0 0 0 0 0	6 2 2 3 1 0 1 2 3 4 7 8	0	13 15 0 1 0 0 0 0 0 0 2 2 2	0 0 0 0 1 8 19 17 6 0 0	26 14 10 0 0 0 0 0 0 0 3 7 20	6 5 6 3 6 15 3 2 1	0 0 0 0 0 0 2 0 0 0 0 0 0 0
							[H=	957	ft.; I:	И <sub>в</sub> =9				TEZ		ft.;	ha=	71 ft.	]										
January February March April May June July August September October November December	7. 5 9. 0 8. 7 11. 0 9. 5 8. 9 9. 6 9. 2 9. 3 8. 3 7. 4 8. 3	SE. SE. SE. SE. SE. SE. NW.	37 30 29 32 43 27 41 26 24 29 27 28	NW. NW. N. NE. NW. SE. E. N. NW. N.	1 0 0 1 1 1 0 2 0 0 0 0 0 0	7 6 4 1 2 0 2 5 10 7	3 2 0 6 3 3 2 2 0 0 0 2 1	15 15 18 6	14 28 22 25 26 26 30 32 37 23 4 19 286	5 3 7 7 4 8 9 9 8 4 3 3	1 3 0 0 0 1 0 0 0 2 0 0 0 7	8 5 1 0 0 0 2 0 0 2 7 8	11 6 5 1 0 0 6	4 2 3 1 1 5 2 1 1 4 6 5	16 9 10 13 7 14 7 16 2 17 3 13	9 11 9 12 15 11 17 11 11 5 9 6	9 12 5 9 5 7 4 17 9 18 12	3 1 2 4 12 5 8 5 10 11 7 6	3 0 2 2 2 10 4 5 3 9 9 9 9 3 3 3	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	3 2 4 0 0 0 0 0 0 0 0 0 3 3 9	0 1 2 0 0 0 0 0 0 0 0 0 2 1	0 0 0 0 0 0 0 0 0 0	0 0 3 4 2 27 19 28 11 2 0 0	5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 2	4 6 3 6 4	0 0 0 0 0 0 0 0 0 0
						[B	[=5,2	221 ft	.; H					COL 6 ft.;		98 ft.	; ha=	=113	ft.]										
January February March April May June July August September October November December	8.8 8.6 9.0 8.6 8.2 7.9 7.7 7.4 7.5 7.2 7.9 4.8		32 31 30 32 30 30 24 24 36 30 26 20	NW. NW. N. S. S.E. S. N.W. NE.	1 0 0 1 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0	9 11 10 11 5 7 5 3 8 17 9 12	4 8 5 6 6 4 2 6 2 9 2 7	4 0 4 3 7 6 1 3 7 2 3 3 3	2 6 3 4 3 9 4 3 6 3	10 13 13 17 22 24 26 24 25 23 26 20 243	8 6 7 5 6 2 6 6 4 1 6 9	16 6 12 5 2 8 10 5 4 1 4 5	9 8 8 10 10 6 9 6 6 6 4 3	0 0 0 0 0 0 0 0 0 0 0 0	9 7 7 7 6 9 15 12 20 11 22 12	12 14 16 15 16 16 12 12 5 12 4 14	8	7 4 11 8 10 9 9 11 7 9 4 4	4 3 7 3 8 4 5 7 3 7 2 2 5 5 5 5	12 11 12 3 3 0 0 0 3 6 7 5	7 4 10 2 2 0 0 0 0 3 5 3 4	0 0 0 0 1 0 0 0 1 0 0 0 2	0 0 1 0 0 1 1 1 1 0 4 1 2	0 0 0 0 0 1 0 0 0 0 3 0 1	7 7 3 1 0 0 0 0 0 1 1 3 23	0 0 0 0 0 11 19 11 0 0 0 0	26 17 5 0 0 0	0 0 0 2 4 12 11 9 2 1 0 0	0 0 0 0 0 0 0 0 0 0
							[H=	=800 :	ft.; E					S, IO t.; h <sub>r</sub>		t.; h <sub>a</sub>	=99	ft.]											
March April May June July August September October	9. 7 10. 7 9. 4	NW. N. N. S. S. SE. SE. S. NW.	29	NW. NW. NW. S. NW. W. W. NW. NW. NW.	0 2 1 1 0 2 1 0 0 0 0 0 0 0	8 15 7 18 8 17 10 8 13 8 8 4	1 3 2 2 2 2 3 0 0 6 3 1 2	11 9 6 3 5 7 10 14 8 4 5 5 5 7	7 7 12 12 21 13 10 16 13 11 6 17	4 11 4 10 14 8 21 11 14 13 8 12	4. 22 83 55 22 7 21 66 84 4	7 8 9 0 1 2 0 0 1 3 3 4	20 13 14 12 6 7 4 9 2 12 21 12 132	0 0 0 0 0 0 1 0 2 2 2 2 0 2	11 6 8 13 12 15 24 11 6 11 11 6	5 13 10 4 8 9 7 14 15 10 12 10	15 10 13 13 11 6 0 6 9 10 7 15	10 10 4 9 10 10 1 13 14 6 5 5	9 9 3 6 4 8 1 9 11 5 2 3	21 18 5 6 0 0 0 0 0 0 0 6 6 6	10 10 1 2 0 0 0 0 0 0 0 4 1	0 0 1 0 0 1 0 0 0 0 0 1 3	3 4 1 1 1 1 0 3 5 7 3 8	1 1 0 0 0 0 0 0 1 1 0 0	24 23 1 3 0 0 0 0 0 0 4 8	0 0 0 0 1 9 26 19 7 0 0 0	30 28 17 10 0 0 0 0 0 7 24 26	0 0 3 5 7 12 3 10 7 3 1 1	0 0 0 0 0 0 0 0 0 0 0

<sup>&</sup>lt;sup>1</sup> Determined by 8 a. m. observation only.

Table 16.—Annual meteorological summaries for the year ended Dec. 31, 1936—Continued Detroit, MICH.1  $[\phi=42^{\circ}24'~\mathrm{N.;}~\lambda=83^{\circ}00'~\mathrm{W.}]$ 

									[φ=	42°24	' N.;	λ=8	33°00	' W	.]												
	P	ressur	re			Т	empe	rature											N	Ioistu	re						
		Extr	emes			Me	an			Extre	emes		De <del>w</del> oint			ativ nidit		Vapo	r pres	ssure	Prec	ipitat	ion	C	loud	iness	
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	00	o l		00	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
January February March April May June July August September October November Year	29. 19 29. 33 29. 38 29. 27 29. 28 29. 32 29. 38 29. 38 29. 38 29. 48	29. 75 29. 70 29. 80 29. 89 29. 64 29. 68 29. 77 29. 82 30. 00 29. 92	28. 35 28. 65 28. 71 28. 82 28. 66 29. 02 29. 05 28. 99 28. 75 28. 75		74. 2 83. 2 80. 9 72. 1 56. 2 38. 4 35. 4	68. 3 79. 8 76. 6 67. 9 52. 0 35. 6	49. 8 74. 4 77. 2 87. 0 84. 5 76. 2 60. 1 42. 3 39. 3		62. 8 65. 8 74. 7 73. 1 66. 2 51. 2 35. 4 32. 2	65 58	-6 -9 10 21 37 46 49 52 37 25 10 8	25		18 13 29 34 46 51 54 58 56 43 27 27	85 80 76 67 69 61 77 84 83 77 81	73 62 59	% 80 (80 70 69 52 58 44 54 66 72 70 76 66	In. 0.098 .080 .156 .180 .343 .395 .466 .521 .465 .278 .158 .138	. 082 . 170 . 191 . 327 . 389 . 419 . 470 . 458 . 287 . 161 . 154	. 211 . 335 . 395 . 444 . 488 . 466 . 299 . 157 . 155	In. 1. 48 2. 62 1. 28 3. 61 . 97 3. 87 . 81 1. 07 5. 90 2. 33 1. 10 2. 04	. 34 1. 96 . 65 1. 33 . 38 . 39 1. 64 1. 60 . 86 1. 10	14. 7 1. 7 1. 2 . 0 . 0 . 0 . 0 . 0 . 0 . 3 2. 0	4. 5 4. 7 3. 0 4. 7 5. 8 6. 7 6. 9 6. 6		8. 6 6. 3 5. 3 7. 8 5. 1 5. 0 3. 8 4. 6 4. 3 6. 6 5. 6	6. 9
										VILS -48°07																	
January February March April May June July August September October November December	28. 50 28. 26 28. 38 28. 36 28. 34 28. 34 28. 42 28. 38 28. 44 28. 52 28. 40	28. 77 28. 79 28. 94 28. 79 28. 81 28. 78 28. 78 28. 81 29. 05 29. 06 28. 84	27. 92 28. 10 27. 96 27. 81 3 28. 01	-20. 0 18. 5 26. 1 51. 3 56. 4 68. 1 58. 1 49. 5 30. 9 20. 5 9. 6	-10. 3 26. 9 39. 6 70. 0 72. 6 88. 9 77. 4 66. 5 47. 8 30. 7 16. 2	-11. 2 25. 1 39. 6 69. 8 70. 9 89. 2 75. 3 62. 7 42. 8 27. 6 14. 3	-6.3 30.7 44.6 75.6 77.0 94.5 81.8 71.0 52.7 36.1	-23. 6 14. 5 23. 0 45. 0 50. 9 63. 5 55. 3 45. 7 26. 5 15. 2	33. 8 60. 3 64. 0 79. 0 68. 6 58. 4 39. 6 25. 6 12. 4	21 44 73 92 101 112 99 92 86 60 48	-37 -46 -16 -1 30 36 47 39 26 4 -8 -24 -46	-23 16 23 42 48 58 50 44 25 18 7	22 24 41 48 56 50 45 28 22 11	22 25 40 48 53 50 45 28 22 11 27	85 80 89 87 83	90 84 82 54 38 44 42 50 70 80	95 84 87 58 36 48 31 44 55 59 79 84 63	. 015 . 100 . 131 . 280 . 353 . 490 . 374 . 321 . 142 . 102	. 023 . 126 . 135 . 268 . 351 . 455 . 378 . 330 . 164 . 122 . 082	. 139 . 258 . 359 . 415 . 365 . 327 . 161 . 120 . 081	. 65 . 51 . 44 . 65 2. 13 1. 55 1. 48 1. 85 . 25	24 28 29 29 1, 47 1, 48 1, 05 1, 41 1, 16 0, 05	7. 2 5. 5 .3 T .0 .0 .0 .0 .0 .7 2. 0	7. 0 5. 6 5. 0 4. 9 2. 4 5. 7 4. 3 6. 0 5. 6 5. 8	6. 0 7. 6 5. 2 4. 1 2. 5 5. 2 5. 4 6. 7	6. 2 5. 9 3. 5 5. 4 2. 4 6. 0 3. 9 4. 9 5. 1 5. 5	5. 8 7. 2 5. 6 4. 3 5. 0 2. 6 5. 7 5. 1 7. 1 6. 2
				r	1		1			37°45										1	1	1			1	i	
January February March April May June July August October November December	27. 40 27. 39 27. 39 27. 47 27. 59 27. 42	27. 72 27. 63 27. 74 7 27. 93 27. 92 27. 72	2 27. 17 3 27. 19 1 27. 11	72. 4 70. 7 62. 5 44. 6 31. 9 31. 7	56. 0 62. 5 72. 5 85. 6 93. 6 93. 8 77. 0 60. 6 52. 1 42. 7	29. 7 56. 2 63. 4 72. 6 85. 9 93. 0 92. 5 74. 5 57. 3 47. 2 39. 9	37. 2 63. 2 69. 0 77. 4 89. 7 97. 4 98. 0 81. 6 65. 7 58. 2 48. 3	10. 0 32. 8 39. 4 57. 5 63. 5 70. 1 69. 3 59. 4 41. 9 28. 7	48. 0 54. 2 67. 4 76. 6 83. 8 83. 6 70. 5 53. 8 43. 4 37. 9	80 79 89 94 107 109 109 97 85 75 66		21 28 53 55 55 56 39 23 28	8 22 30 52 54 50 51 54 41 24 31	49 49 53 42 23 31	70 54 62 80 68 57 55 81 80 68 84	34 54 36 26 27 50 51 36 64	43 25 32 52 35 26 26 53 58 40 72	. 059 . 112 . 173 . 412 . 434 . 448 . 406 . 477 . 247 . 122 . 155	. 067 . 118 . 185 . 404 . 415 . 377 . 384 . 444 . 266 . 133 . 174	. 108 . 176 . 385 . 398 . 361 . 366 . 428 . 283 . 127 . 177	. 06 . 10 . 56 5. 81 1. 31 1. 10 . 98 1. 81 1. 00	. 02 . 08 . 38 3. 34 1. 03 . 19 . 65 . 83 . 30 . 30 . 47	78 .11 1.25 1.25 1.25 .00 1.00 .00 .00 .00 .00 .00 .00 .00 .00 .00	4. 3 1. 9 2. 9 5. 7 2. 4 1. 8 2. 4 5. 5 4. 4 1. 7	3. 5 2. 4 2. 3 5. 4 2. 0 2. 4 5. 0 5. 1 2. 1 5. 1	2. 7 3. 8 5. 2 2. 3 3. 4 2. 9 5. 2 3. 8 1. 6 3. 8	4. 7 2. 7 3. 0 5. 2 2. 0 2. 3 2. 5 5. 3 4. 1
	-									DUB =42°30					V.]												
January February March April May June July August October November December	29. 33 29. 11 29. 28 29. 27 29. 20 29. 19 29. 22 29. 26 29. 33 29. 35 29. 36	29. 63 29. 58 29. 64 29. 65 29. 66 29. 56 29. 56 29. 53 329. 72 29. 75 329. 75 329. 75 329. 75 329. 75 329. 75	8 28. 57 4 28. 89 5 28. 74 5 28. 54 7 28. 90 8 28. 54 7 28. 92 1 28. 86 2 28. 92 1 28. 86 2 28. 72 2 28. 43 2 28. 43	59. 6 61. 8 72. 2 68. 2 60. 8 44. 2 29. 4 25. 8	11. 4 40. 6 49. 7 72. 4 74. 2 89. 4 83. 8 71. 8 2 55. 6 38. 3 32. 5	10.0 40.6 49.9 70.8 75.0 89.8 82.7 668.6 52.1 36.9	16. 9 46. 9 54. 3 76. 6 79. 2 94. 6 88. 9 75. 4 58. 9 43. 1	-1.3 29.4 36.1 56.3 57.9 67.6 64.6 57.2 41.2 26.4 3 20.7	7. 8 38. 2 45. 2 66. 4 68. 6 81. 1 6 76. 8 2 66. 3 2 50. 0 34. 8	46 76 79 90 97 110 107 92 81 64 58		1 26 30 49 5 50 5 59 6 60 5 39 5 25 2 25 3 21	1 24 29 49 51 58 5 57 39 26 1 23	27 24	71 68 67 65 76 86 82 81 82	48 46 46 36 44 62 56 60 68	72 60 51 51 49 36 50 70 67 68 75	. 056 . 143 . 178 . 358 . 369 . 519 . 534 . 471 . 255 . 136 . 126	5 .058 6 .146 8 .178 8 .364 8 .380 9 .488 4 .494 1 .495 5 .266 1 .146	0 . 157 9 . 193 14 . 381 5 . 423 8 . 501 14 . 539 14 . 282 7 . 160 0 . 140	1. 75 8 . 84 1. 45 8 3. 66 5. 16 2 3. 6 0 6	2 .6. .3 .2. .4 .2 .3 .4 .2 .3 .5 .3 .4 .3 .2 .5 .1 .5 .3 .1 .5 .3 .1 .6 .3 .9 .9	9 5.7 7 .0 3 .0 1 .0 2 .0 1 .0 6 .0 2 .0	3 6. 2 7 5. 9 5 8 9 5. 9 5 5. 9 5 5. 9 5 5. 9 5 5. 9	2 7. 0 6. 6 9 5. 2 5. 8 5. 8 7 2. 8 4. 3 6. 1 7 6. 4	7. 3 6. 5 6. 2 6. 2 5. 2 5. 1 5. 1 4. 4 6 4 . 4 6 4 . 4 6 6 6 . 2 6 6 . 2 6 6 . 2 6 6 . 2 6 6 6 . 2 6 6 6 . 2 6 6 6 . 2 6 6 6 . 2 6 6 6 6	6. 9 6. 6 6. 0 5. 6 5. 0 3. 3 4. 5 5. 7 6. 0

<sup>1</sup> Observations taken at airport.

DETROIT, MICH.1

	1		[H=619 ft.; H <sub>b</sub> =626 ft.; H														ft.; h	в=78	3 ft.]	· · · ·									
						7	Wind	i												1	Numl	ber (	of da	ys					
		By s	elf-re	gister		Nu	ımbe	r of v	winds	s, 8 a	. m.	and	8 p.	m.				Pre itat	cip- ion	Sı	10W		F	og	Ma mu ten		лге 32°		lec- city
Month	Average hourly velocity	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	T or more	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperature or below	Thunderstorm	Aurora
MayJuneJuneAugustSeptemberOctoberNovemberDecember	11. 1 10. 6 10. 0 8. 6 7. 4 8. 3 8. 6 10. 1 12. 2	SW. NW. SW. NE. NE. SW. SW.	Mi. 34 41 44 34 27 24 26 26 34 33 32 44	W. S. NW. NW. NW. SW.	2 3 2 1 1 0 0 0 0 1 1 1 1	2 14 5 4 10 4 6 4	7 7 6 11 7 12 19 14 14 6 4 4	4 1 4 1 3 4 4 7 4 2 3 5	3 5 8 8 7 9 7 5 1 7	3 2 6 8 6 4 3 7 11 14 5 10	25 20 12 6 18 7 6 11 5 16 19 16	6 6 8 9 5 4 6 6 6 2 3 8 8 8	11 9 12 16 13 8 10 3 7 12 14 7	1 1 0 0 0 0 0 0 1 0 0 0	0 7 6 3 12 11 16 11 9 8 7 7	5 6 9 8 10 11 13 12 8 7 5 6	26 16 16 19 9 8 2 8 13 16 18 18	16 15 10 18 7 9 3 9 15 14 9 11	8 9 9 13 6 5 3 6 14 9 4 6 92	26 19 7 12 0 0 0 0 0 0 2 14 9	13 15 3 8 0 0 0 0 0 1 5 6	0 0 1 0 0 2 0 0 0 1 0 0 0 0 4	8 8 6 10 1 3 2 3 11 10 2 11 75	1 3 0 1 1 1 0 0 1 5 1 0 4	19 19 3 1 0 0 0 0 0 0 5 5 5	0 0 0 0 1 0 9 11 1 0 0 0 2 2 2	27 21	0 0 1 2 4 7 5 8 8 2 1 0	0 0 0 0 0 0 1 0 0 0 0 0 0
							[H	=1,4	71 ft.		7ILS =1,4						t.; h:	=44	ft.]										
January February March April May June July September October November December Year Year March May Year Year March	8. 9 11. 4 10. 6 10. 3 9. 3 9. 0 8. 0 9. 3 10. 1	NW. W. NW. S. S. S. NE. S. NW. NW.	23 32 33 32 29 28 44 22 26 33 42 38	N. NW. NW. NW. NE. NW. NW. NW. NW.	0 1 1 1 1 0 0 0 1 1 2 1 1 8	8 7 10 6 9 6 10 10 8 6 7	4 3 5 13 8 6 8 15 4 5 9 4 84	4 4 4 2 4 7 11 7 3 1 4 54	5 3 5 4 9 6 9 10 9 8 4 5 77	8 3 6 4 11 11 11 5 13 7 5 10 94	7 7 7 12 7 6 5 7 6 11 15 11	111 111 33 7 6 6 6 6 4 7 5 7	16 18 16 10 9 9 6 2 10 13 15 14	0 1 1 2 1 0 0 0 0 1 0 0 0	6 10 4 10 15 10 21 8 10 8 5 9	9 6 8 10 9 12 10 9 11 12 9 8	16 13 19 10 7 8 0 14 9 11 16 14	9 8 10 6 6 10 4 7 7 4 6 6 6	4 3 4 5 2 3 6 2 1 4	15 18	9 8 9 3 0 0 0 0 0 2 6 5	0 0 0 1 1 1 0 0 0 0 4	7 6 5 1 1 1 0 2 3 1 1 6	1 2 1 1 0 0 0 2 0 2 1	31 29 17 7 0 0 0 0 0 2 10 19	0 0 0 4 2 21 7 2 0 0 0	29	0 0 0 7 10 6 5 6 0 0 0 34	1 1 3 4 0 2 1 0 0 4 1 0
						1	H=:	2,522	ft.; F		DGI 2,509					3 ft.;	ha=	86 ft	.]										
January February March April May June July August September October November December	12. 0 14. 1 13. 8 13. 0 12. 0 10. 5 12. 6 11. 9 11. 6 11. 3	N.S.N.S.S.S.S.S.N.S.S.S.S.S.S.S.S.S.S.S	30 44 38 36 40 50 30 27 35 37 33 28	N. S. SE. SE. NW. SW. SE.	0 4 9 5 4 1 0 0 1 2 1 0	8	7 10 4 7 7 9 10 3 2 7 4 8	3 1 4 6 4 3 4 6 4 3 2 0	7 9 4 9 12 12 6 4 7 6 1 10 87	9 14 10 14 24 22 24 27 25 17 8 11	8 5 7 1 3 3 4 7 4 3 9 12 66	10 6 8 9 1 3 10 10 4 5 9 5	3 5 8 4 4 4 1 0 4 5 11 4 53	0 0 0 0 0 0 0 0 0 0 0	14 14 18 19 11 23 20 21 11 14 25 13	7 6 13 6 9 6 9 7 8 11 2 7	10 9 0 5 11 1 2 3 11 6 3 11 72	7 6 3 6 11 4 6 4 11 8 0 3	5 0 1 3 8 3 4 4 8 6 0 2	9 9 1 2 0 0 0 0 0 2 1 5	7 6 1 1 0 0 0 0 0 0 2 0 2	0 0 0 0 0 3 0 0 0 0 0 1 0 0 4	6 2 0 3 1 0 0 0 4 1 4 5	2 0 0 2 0 0 0 0 0 0 0	11 15 0 0 0 0 0 0 0 1 1	0 0 0 0 3 15 26 27 9 0 0 0	31 26 15 7 0 0 0 0 0 7 20 26	0 0 0 4 10 5 7 6 2 3 0 0	0 0 0 0 0 0 0 0 0 0
							[H]	=64	l ft.;		UBU :699 f					53 ft.;	; ha=	79 ft	]										
January February March April May June July September October November December Year	7. 1 7. 7 7. 7 6. 4 5. 9 5. 4 5. 7 5. 2 6. 2 7. 3 6. 5		24 17 22 19 20 27 24 27	NW. SE. SE. NW. NW. NW. NW. NW. NW. NW. NW. NW.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	6 8 10 8 2 5 5 6 9 12 1 1	4 7 0 4 6 6 6 7 2 4 2 5 1	3 4 3 4 3 8 9 6 2 2 3 4	9 7 10 7 10 11 9 8 8 8 3 3 14	5 5 12 13 24 14 12 23 23 21 13 17	5 8 4 4 6 2 4 1 2 5 7 7	2 4 1 1 3 3 2 2 2 2	24 16 19 19 10 11 11 11 14 7 11 124 16 82	0 1 0 0 0 0 0 2 0 3 4 2 1	8 7 8 9 10 13 20 13 10 10 9 10	6 4 8 6 7 12 9 6 11 5	17 18 15 15 14 9 4 6 11 15 10 16	13 11 11 9 7 10 7 15 15 10 6 6 120	8 5 6 7 6 13 14 8 4 3	17 17 10 5 0 0 0 0 0 0 0 9 7	13 11 4 4 0 0 0 0 0 0 0 0 4 3 3 39	0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0	1 1 0 4 1 0 3 13 14 5 14 57	1 1 0 0 2 1 0 0 2 1 0 0 2 1 1 0 2 2 1 2 1	23 23 4 4 0 0 0 0 0 0 0 0 8 65	0 0 0 0 1 3 20 14 2 0 0 0	30 27 19 9 0 0 0 0 7 24 27	0 0 2 1 5 7 7 7 14 6 2 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

<sup>&</sup>lt;sup>1</sup> Observations taken at airport.

Table 16.—Annual meteorological summaries for the year ended Dec. 31, 1936—Continued Duluth, MINN.

[φ=46°47′ N.; λ=92°06′ W.]

									$[\phi = 4]$	16°47′	N.;	X=95	2°06	′ W	[.]													
	P	ressur	е			Te	mper	ature											M	oistu	re							_
		Extre	emes			Me	an			Extre	mes		Dew oint			lativ nidi		Vapo	r pres	sure	Pred	ipita:	tion	(	Clou	ıdine	ess	_
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight	-
January February March April May June July August September October November December	28. 76 28. 76	29, 18   29, 08   29, 18   29, 17   29, 18   29, 18   29, 18   29, 35   29, 35   29, 41   22, 92	28. 42 3 28. 29 5 28. 25 1 28. 04	-9. 1 19. 8 28. 2 46. 9 54. 1 65. 0 61. 1 52. 6 35. 2 22. 1 16. 0	37. 9 55. 1 64. 6 77. 9 72. 0 63. 1 44. 4 27. 6 20. 7	74. 0 68. 2 58. 7 39. 8 24. 9 18. 9	41. 8 63. 5 68. 2 81. 9 75. 2 68. 2 48. 6 31. 7 25. 3	17. 3 24. 9 41. 9 47. 0 59. 3 57. 9 49. 5 29. 7 15. 6 8. 9	33. 4 52. 7 57. 6 70. 6 66. 6 58. 8 39. 2 23. 6 17. 1	38, 45, 62, 86, 87, 106, 93, 86, 76, 52, 39	-35 -33 -14 2 31 39 46 52 32 6 1 -23	-13 16 22 40 46 55 54 48 30 18 14	19 24 42 46 58 54 49 30 19 16	24 42 45 54 54 48 30 19 15	86 76 79 76 71 79 85 80 84 89	66 70 59 62 55 50 58 63 60 68 82	75 80 65 65 60 53 64 70 71 78	. 028 . 099 . 125 . 259 . 320 . 439 . 419 . 350 . 175 . 105		. 039 . 116 . 137 . 279 . 306 . 432 . 419 . 356 . 182 . 108	2. 36 2. 65 2. 76 . 93 . 63 1. 48 1. 28 1. 58 2. 29	. 67 . 59 1. 82 . 48 . 36 . 39 . 93 . 49 . 49 . 49 . 60	1. 2 3 . 0 9 . 0 3 . 0	7. 4 6. 6 6. 1 5. 6 3. 3 7. 2 6. 8 6. 8	3. 3. 7. 6. 6. 6. 5. 3. 6. 4. 6. 6. 6. 6.	8 3. 7. 2 4. 6 5. 9 5. 5 2. 0 6. 7 5. 5. 6 5. 0 6.	8 3. 7. 8 5. 8 5. 8 5. 6. 5. 8 5. 6. 5. 7. 7.	7 6 9 1 7 4 5 8 7 0 6
										CAST =44°5																		
	00.7	0:20 4	700 0	5 20.	24. 2	23.0	29. 8	14. 4	T	1		1	T.	T.	Τ	74	78	0. 102	0, 110	0. 110	3. 2		0 8.5	2 6.				. 7
January	29. 8 29. 8 29. 8 29. 8 29. 7 29. 7 29. 9 29. 8 1. 29. 8 1. 30. 1	8 30. 4 9 30. 3 6 30. 3 7 30. 4 1 30. 2 7 30. 1 2 30. 2 30. 3 30. 3 6 30. 5 5 30. 8	3 29. 10 7 29. 0 5 29. 1 4 29. 2 6 29. 2 3 29. 3 7 29. 5 7 29. 4 3 29. 1 1 29. 0	9 34. 7 37. 8 46. 4 54. 4 54. 59. 59. 6 33. 9 27.	5 20.9 39.0 1 40.6 7 50.9 58.7 63.3 64.3 58.0 64.3 58.0 63.3 64.3 58.0 63.3 64.3 58.0 63.3 64.3 65.3 66.3 66.3 66.3 66.3 66.3 66.3 66	9 21. 5 37. 5 38. 7 46. 5 7 56. 0 59. 8 59. 8 59. 8 47. 0 47. 0 47. 0 34. 8 30. 5	26. 9 42. 9 44. 0 55. 8 68. 0 67. 1 61. 0 54. 3 7. 2 8. 0 8. 0 8. 0 8. 0 8. 0 8. 0 8. 0 8. 0	11.69 30.69 33.1 39.8 47.6 51.4 7, 52.4 48.4 40.6 27.1 19.9	3 19. 3 36. 3 8. 47. 55. 59. 4 60. 54. 54. 54. 55. 54. 55. 59. 47. 52. 54. 55. 54. 55. 54. 55. 56. 57. 58. 58. 58. 58. 58. 58. 58. 58	2 44 8 55 6 52 6 81 7 75 8 83 0 84 4 68 4 60 52	2 3 4 4 4 4 3 2	4 98 327 310 422 558 548 54 43 77 30 42 24	9 10 32 33 1 34 42 44 53 5 56 0 55 3 46 0 3: 5 2'	13 33 34 34 42 44 42 55 56 56 56 57 7	3 74 3 88 4 80 2 85 2 88 4 87 5 86 3 88	14 60 80 77 80 77 80 77 77 77 77 77 77 77 77 77 77 77 77 77	0 69 0 85 7 82 8 86 2 86 2 88 2 88 2 88 3 86 8 85	0 .076 185 178 2 .276 377 418 430 373 418 .373 .293 .186 .186 .377 .418 .373 .293 .293 .293 .39	. 075 . 202 . 198 . 198 . 298 . 403 . 440 . 460 . 399 . 325 . 325 . 164	. 091 . 198 . 195 . 265 . 387 . 419 . 436 . 379 . 292 . 182 . 156	1. 7 3. 4. 4 5. 2. 6 5. 2. 6 7. 4. 0 1. 0 2. 3 3. 1 3. 3 2. 2 5. 6 5. 6	3 .8 8 1.5 4 .7 7 .8 7 1.3 8 .2 8 1.2 3 .8 2 1.0	3 7.18 8 1.08 1.03 3 .03 8 .02 55 .03 66 7.66	7 6. 7. 6. 5. 5. 5. 5. 6. 7. 6. 7. 6. 6. 7. 6.	6 7 4 8 7 7 6 7 6 7 6 6 8 7 0 6 8	.3 7 .1 6 .2 6 .0 6 .6 6 .4 5 .6 6 .0 4 .7 8	$ \begin{array}{c cccc} .0 & 7 \\ .2 & 7 \\ .9 & 7 \\ .1 & 7 \\ .2 & 6 \\ .0 & 6 \\ .0 & 6 \\ .1 & 8 \end{array} $	. 4 . 5 . 6 . 1 2 9 9 8 2 9 8 1 
					,	.!			[d	EL =38°5	KIN																	
January February. March April June July Septembe October Novembe Decembe	27. 9 27. 9 27. 9 28. 0 27. 9 27. 9 28. 0 28. 0	98 28. 3 85 28. 1 99 28. 3 98 28. 4 95 28. 1 99 28. 3 97 28. 3 99 28. 3 99 28. 3 99 28. 3 99 28. 3 99 28. 3	14 27. 2 35 27. 3 48 27. 7 16 27. 6 33 27. 8 34 27. 8 30 27. 7 43 27. 4 45 27. 5	8 20. 8 35. 9 42. 5 53. 13 61. 16 64. 18 58. 17 46. 15 33.	5 31. 4 47. 5 51. 6 69. 3 75. 0 78. 7 78. 3 73. 7 59. 1 43.	7 30. 44. 48. 65. 70. 73. 72. 65. 4 52. 39.	6 38. 3 53. 9 57. 0 74. 5 80. 0 83. 5 83. 78. 9 65. 0 48. 0 47.	8 16. 5 31. 6 34. 4 45. 0 52. 5 60. 6 53. 2 42. 9 28. 5 26.	0 25. 2 27. 1 42. 6 46. 7 60. 9 66. 6 70. 1 71. 8 66. 1 53. 4 38. 3 36.	2 56 5 68 3 74 1 79 0 90 4 92 9 96 8 96 6 70 9 6	3 -13 -13 -13 -13 -13 -13 -13 -13 -13 -1	16 1 15 3 15 3 20 3 32 4 40 5 46 6 48 6 48 6 5 23 4 14 2 20 2	9 2 8 2 3 3 5 3 8 4 54 5 60 6 60 6 556 5 44 4 228 228 3	1 2 0 2 3 3 5 3 5 4 6 6 6 5 4 5 6 6 6 5 8 9 8 8 9 8 9 8 9 8 8 9 8 9	11 8 13 9 14 8 14 7 19 8 15 7 13 8 14 7 19 8 15 7 16 8 16 8 16 8 16 8 16 8 16 8 16 8 16 8	7 7 7 6 6 5 5 5 2 5 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5	1 7: 2 6: 6 6: 1 5: 8 5 7: 7 7: 88 7: 70 7: 70 7:	3 .11 8 .18 9 .21 9 .34 9 .41 2 .53 6 .55 7 .45 7 .30 2 .16 4 .16	5 . 21 5 . 35 9 . 40 0 . 55 3 . 55 5 . 47 4 . 31 . 55 . 18	6 .13 8 .20 9 .35 8 .43 0 .58 6 .60 1 .49 8 .32 1 .17	9 2.9 0 8.3 6 4.6 9 4.3 7 3.6 8 8. 97 1. 29 4.3	92 1. 92 3. 97 1. 98	84 67 02 67 12 06 1.	4 7 8 8 0 7 0 4 0 5 0 4 0 4 T 6 6 6 6	.1 6 .0 .95 7 7 7 6 .6 .9 3 . 7	5. 3 7. 0 7. 2 4. 1 4. 6 5. 5 5. 7 6. 8 7. 3	3. 2 5. 1 5. 5 4. 4 6. 7 5. 2 5. 7 5. 6 6. 8	8. 0 7. 2 7. 6 7. 6 4. 5 5. 8 5. 9 6. 2 6. 9 7. 4
Year	28.	02 28.	51 27. 2	24 44.	5 56.	4 52.	2 62.	1 38.	8 50.		L PA			_		36 6	50 7	1 . 29		1 . 02		11 0.	10 00.	*		0.0	0.0	
									[φ	=31°4						.]	,					1	b		i			_
January_February March_April_May June July August_Septembe October_ Novembe Decembe	26. 26. 26. 26. 26. 26. 26. 26. 26. 26.	12   26. 11   26. 16   26. 13   26. 13   26. 17   26. 19   26. 16   26. 23   26. 34   26. 24   26.	40   25.   39   25.   49   25.   38   25.   31   25.   35   26.   37   26.   34   25.   46   26.   62   25.   51   25.	84 42. 72 48. 87 53. 88 63 63. 88 71. 000 72. 70 02 70. 90 64. 000 53. 95 42. 88 38.	5 56. 1 63. 9 72. 6 80. 2 90. 5 88. 7 86. 6 78. 8 70. 6 56. 6 53.	9 59. 7 66. 6 75. 7 82. 2 93. 7 90. 7 87. 5 79. 6 69. 6 56. 1 52.	1 62. 3 70. 5 78. 8 86. 0 95. 2 94. 2 91. 5 84. 8 75. 1 61. 3 57.	7 39 0 45 8 52 5 61 4 69 1 71 9 69 4 63 2 51 4 39	8 51 9 58 .7 65 .8 74 .5 82 .2 82 .6 80 .7 63 .8 50 .7 46	2 7 .0 7 .8 9 .2 9 .4 10 .6 10 .8 9 .7 9 .4 8	55 17 105 105 102 103 109 106 106 108 108 108 108 108 108 108 108 108 108	29 34 34 49 60 65 65 44 43 26 26	27 26 27 42 45 56 55 56 42 30 30	24 21 23 38 46 53 55 41 28 28	25 20 23 35 43 51 52 54 41 32 31	55 43 36 47 41 58 61 75 66 63 70	29 2 20 1 17 2 24 2 22 3 34 3 47 4 37 36	28 . 1: 18 . 1: 16 . 1: 221 . 2: 19 . 3: 28 . 4: 33 . 4: 44 . 4: 339 . 2: 442 . 1: 446 . 1:	52 . 1 30 . 2 17 . 3 55 . 4 49 . 4 58 . 4 68 . 2 75 . 1	31 - 13 12 - 10 37 - 1 43 - 2 18 - 2 18 - 2 18 - 3 10 - 3 10 - 3 10 - 3 12 - 4 13 - 2 15 - 2 16 - 2 17 - 2 18 -	37 08 30  30  88  99 1 3 65  478	06 T 11 56 34 68 94 52 1 32 32 51	T 07 55 33 35 77 49	.0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0	2. 5 2. 7 2. 0 3. 0 1. 5 3. 3 3. 0 3. 6 3. 2 3. 7 2. 6	3. 0 3. 5 2. 0 3. 0 . 6	2. 5 2. 8 2. 5 3. 3 1. 6 3. 4 4. 0 3. 2 2. 1 3. 5	3. 3 3. 0 3. 9 2. 9

							[H=	=1,12	8 ft.;	H <sub>b</sub> =	= 1,13	3 ft.;	ht:	=5 ft	; hr	=3 ft	.; ha	=47	ft.]										
	Wind																			N	Vumb	er e	of da	ys					
		Bys	elf-re	gister		Nu	ımbe	rof	wind	s, 8 a	. m.	and	8 p.	m.				Preditati		Sn	now		F	og	Ma mu ten	ım	ure 32°		ec-
Month	Average hourly velocity	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	T or more	0.01 inch or more melted	Hail	Light	Dense	32 <sup>™</sup> or below	90° or above	Minimum temperature or below	Thunderstorm	Aurora
January February March March April May June July August September October November December Year	12. 9 12. 2 11. 8 9. 8 12. 1 11. 4 12. 7 14. 8	NW. NW. NE. NE. NE. NE. NW. NW.	Mi. 36 40 41 38 38 35 34 35 39 41 49 39	NW NW NW NW NW NE. E. NW NW NW	4 4 4 6 6 4 1 1 1 1 1 2 2 4 9 7 7 4 4 4	3 6 6 6 7 4 5 2 7 6	12 15 27 22 31 21 25 11 5 6	2 3 6 3 6 5 3 9 3 1 1 4	0 1 1 0 1 0 0 2 2 6	1 0 1 1 0 0 1 0 1 1 0 1 1 7	3 1 6 6 5 8 8 7 13 14 14	15 20 16 6 9 10 8 7 8 7 12 10	22 15 22 8 8 5 12 14 20 20 18	1 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0	12 19 5 8 8 8 16 6 9 6 7 5	6 3 6 8 9 12 11 10 11 12 6 4	13 7 20 14 14 10 4 15 10 13 17 22	9 6 15 8 14 10 6 14 6 7 9 17	5 4 11 5 12 5 3 9 5 5 6 10 80	22 13 21 11 1 0 0 0 0 6 21 18	9 6 14 3 1 0 0 0 0 3 9 14	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 3 6 6 9 5 2 4 6 3 2 10	1 0 3 7 9 8 3 5 3 5 3 2 6	31 28 14 7 0 0 0 0 2 15 20	0 0 0 0 0 0 0 0 9 5 0 0 0 0 0	31 29 30 24 4 0 0 0 1 19 29 30	0 0 2 1 4 3 3 6 4 0 0	0 0 1 4 1 1 1 0 0 1 1 0
							(B	[=33	ft.; I			POI					18=8	5 ft.1											
March	11. 7 12. 0 11. 0 8. 5 7. 2 7. 6 9. 5 11. 0 11. 0	NW. W. SW. SW. SW. SW. SW. SW. NW. NW.	45 32 41 37 33 24 26 28 39 32 46 46	NE. NW. SE. SW. E. NW. S. SE. W. S. NW. S.	8 1 4 4 1 0 0 0 0 0 3 1 5 27	7 8 6 6 5 4 9	6 5 6 3 4 3 2 1 7 2 7 2 7 2 48	1 1 8 6 4 2 1 1 2 0 2 5	6 2 3 2 4 0	6 3 8 1 6 8 11 7 2 1 1 1 3	1 7 14 20 27 24 20 27 21 26 16 11 214	13 13 2 9 3 3 9 7 9 10 11 7	24 17 10 13 8 12 10 9 8 12 15 17	0 0 0 0 1 1 1 1 1 0 1 0 6	9 11 4 5 5 4 2 4 6 8 3 6	3 7 6 4 9 8 14 11 9 8 5 6	19 11 21 21 17 18 15 16 15 15 22 19	12 11 15 16 16 12 10 14 13 13 16 16	9 8 13 13 9 9 7 9 10 10 13 12	16 12 6 8 1 0 0 0 0 0 1 1 10 8 6	7 7 4 5 0 0 0 0 0 0 5 3	0 0 0 1 0 0 0 0 0 0 0 0 0	5 6 16 7 16 19 18 15 16 17 12 14	0 2 6 1 1 12 13 10 9 2 0 3	17 20 3 0 0 0 0 0 0 0 0 5 8	0 0 0 0 0 0 0 0 0	29 29 12 11 1 0 0 0 4 16 27	0 0 0 1 2 3 4 2 0 1 0 0 1 1 2 1 0 1	0 0 1 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
							[H=	1,927	ft.; I			INS ft.; h				52 ft	.; ha:	=78 f	t.]										
January February March April May June July August September October November December	4. 7 4. 4 4. 2	W. W. W. N. N. SE. SE. W. W. SE. W.	32 30 27 30 29 32 34 25 18 22 28 35	W. SW. W. NW. NW. NW. S. S. S. S. S. S. S. SW. SW.	1 0 0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 1 1 1 1 4 4 4 4	7	3 9 13 5 4 5 10 7 3 6 7	5 6 1 1 3 8 8 5 3 1 3 6	11 8 9 10 11 16 9 14 11 13 6 14 132	9 2 4 10 6 5 5 8 6 8 8 7	8 6 7 7 2 4 7 1 2 6 4 3 57	14 13 9 10 8 5 5 11 8 11 17 8	6 10 8 5 8 4 4 4 3 9 9 9 9 5 5 8 8	1 2 4 1 6 0 5 5 3 2 0 4 33	3 4 2 2 15 9 8 9 8 4 5	8 9 12 9 7 16 14 12 9 8 12 7	20 16 17 19 9 5 8 11 12 15 14 19	22 13 15 15 10 8 14 12 8 12 12 16	17 10 13 12 9 8 12 12 5 10 9 10	20 12 8 9 0 0 0 0 0 2 9 7 67	12 6 6 4 0 0 0 0 0 0 5 5	0 0 0 0 0 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0	2 8 10 3 5 12 11 13 13 14 7 9	1 4 3 1 0 2 5 7 8 9 3 4	11 10 1 1 0 0 0 0 0 0 0 3 3 3	0 0 0 0 1 1 6 2 0 0 0 0	27 26 19 13 1 0 0 0 5 21 23	0 0 3 6 9 8 13 12 1 0 0	0 0 0 0 0 0 0 0 0 0
						1	H=3	3,710	ft.; E			PAS ft.; h				75 ft	.; ha:	=101	ft.]										
January February March April May June July August September October November December Year	9. 2 13. 3 12. 8 10. 2 9. 0 9. 0 8. 7 7. 3 7. 4 7. 4 7. 8 6. 6 9. 0	NW. W. E. SE. E. E. E. E.	37 48 46 43 32 30 26 32 27 23 24 27	W. W. W. SE. SE. NE. SE. N. NE. SW.	2 8 9 4 1 0 0 1 0 0 0 0 0 0 0	0 1 2 2 3 1 1 2 2 3 2 3 2 3 2 3 2 3 2 2 2 3 2 2 3 2 2 3 2 2 3 2 3 2 2 3 2 3 2 3 2 3 2 3 2 3 2 3 2 3 2 3 2 3 2 3 2 3 2 3 3 2 3 3 2 3 3 2 3 3 2 3 3 2 3 3 2 3 3 2 3 3 2 3 3 2 3 3 2 3 3 2 3 3 2 3 3 3 3 2 3 3 2 3 3 3 2 3 3 3 3 3 2 3 3 3 3 3 2 3 3 3 3 3 2 3	7 1 6 5 1 8 5 8 8 8 13 8	5 5 11 13 17 22 20 21 15 23 21 10	4 0 0 3 18 13 21 24 16 3 5 3	2 0 2 0 0 0 0 1 1 1 1 1 2	2 0 2 4 1 0 1 1 1 5 3 1	19 28 20 23 10 9 4 2 5 10 6 6 20	23 22 18 10 12 13 6 6 11 7 7 14	0 1 1 0 0 1 1 1 2 2 1	18 14 17 21 19 25 19 21 20 19 18 19	7 13 9 7 9 5 10 8 6 7 4 4 8	6 2 5 2 3 0 2 2 4 5 8 4	1 1 0 2 2 2 2 2 4 10 8 3 8 5	1 1 0 2 1 1 3 8 7 2 6 5	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 1	2 0 0 0 0 0 0 0 0 0 1 1 1 0 0	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0 0 1 1 9 27 26 21 10 0 0 0	13 2 0 0 0 0 0 0 0 0 4 9	0 0 1 2 3 4 10 11 5 1 2 0	0 0 0 0 0 0 0 0 0

Table 16.—Annual meteorological summaries for the year ended Dec. 31, 1936—Continued

ERIE, PA.  $[\phi = 42^{\circ}07' \text{ N.}; \lambda = 80^{\circ}05' \text{ W.}]$ 

	$[\phi = 42^{\circ}07' \text{ N.; } \lambda = 80^{\circ}05' \text{ W.}]$ Pressure Temperature Moisture														_												
	Р	ressur	e			Te	emper	ature											N	1oistu	re						
		Extr	emes			Me	an			Extr	emes		Dew			ativ idit		Vapo	r pres	sure	Pred	ipitat	ion	C	Cloud	liness	; 
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	p.		Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight Daylight
JanuaryFebruary March April May June July August September. October November. December	29. 28 29. 10 29. 24 29. 29 29. 17 29. 18 29. 24 29. 30 29. 29 29. 28 29. 40	29. 63 29. 70 29. 89 29. 83	28. 35 28. 59 28. 56 28. 80 28. 68 28. 92 28. 95 28. 87 28. 65 28. 69	63. 2 49. 3 35. 1 32. 7	39. 0 37. 4	24. 1 20. 6 38. 6 42. 2 62. 6 69. 1 77. 2 73. 6 67. 2 53. 8 37. 7 36. 5 50. 3	0 29. 7 27. 0 44. 8 50. 0 70. 3 75. 7 82. 5 80. 4 75. 0 61. 4 44. 0 41. 9	58. 6 65. 5 65. 0 58. 6 45. 9 31. 0 29. 0	37.5	90 98 93 92 78 70 62	。 -7 -3 12 23 39 48 54 55 39 27 8 8		57 62 58 47 32 27	14 31 35 52 56 59 62 57 45 32 28	78 80 74 65 62 71 74 80	76 72 68 57 51 65 66 70 77 65	79 74 75 75 69 64 56 68 70 73 78 70	In. 0. 107 . 083 . 167 . 197 . 391 . 400 . 481 . 532 . 451 . 299 . 180 . 146 . 286	In. 0. 108 . 088 . 193 . 214 . 444 . 422 . 484 . 573 . 502 . 342 . 199 . 151 . 310	. 088 . 185 . 217 . 412 . 456 . 520 . 565 . 479 . 314 . 189 . 158	. 91 1. 28 1. 52 2. 86 4. 11 1. 19	. 68 1. 61 . 56 . 42 1. 28 . 50 . 54 . 88 . 86 1. 31	11. 3 20. 4 9. 0 .0 .0 .0 .0 .0 T 13. 4 3. 2	5. 2 4. 4 6. 7 8. 0 7. 0	7. 0		8.8 7.5 6.8 8.0 4.0 4.2 2.8 4.6 4.1 6.1 7.7 6.9
											NAB 'N.;				7.]												
January February March April May June July August September October November. December	29. 38 29. 18 29. 36 29. 36 29. 36 29. 31 29. 34 29. 38 29. 38 29. 41	29. 78 3 29. 76 29. 83 3 29. 83 5 29. 83 1 29. 70 1 29. 59 5 29. 81 29. 88 3 30. 09 29. 88	28. 43 7 28. 93 8 28. 73 9 28. 55 9 29. 00 9 28. 88	. 8 23. 9 31. 0 48. 6 55. 4 66. 3 61. 0 55. 9 39. 3 26. 1 23. 1	9. 1 30. 0 37. 2 55. 7 61. 6 75. 3 67. 6 63. 9 47. 6 31. 7 27. 9	35. 2 55. 0 60. 9 74. 2 66. 0 60. 8 44. 6 29. 9 26. 6	66. 7 79. 6 71. 5 67. 2 50. 6 36. 3 31. 9	-4. 7 20. 0 27. 3 43. 2 47. 8 60. 2 57. 1 51. 3 35. 6 22. 1 17. 5	4. 4. 4 27. 2 34. 0 52. 2 57. 2 69. 9 64. 3 59. 2 43. 1 29. 2 24. 7	43 50 60 84 79 99 88 88 66 59 46		-3 19 25 42 47 56 54 52 34 21 20	0 20 27 43 48 58 57 53 35 21 22 33	1 21 27 45 48 58 57 53 36 21 21	89 83 80 78 79 74 70 80 86 80 81 87	63 66 67 66 64 57 69 69 63 64 76		.046 .109 .141 .277 .328 .459 .430 .404 .210 .117 .115	.049 .116 .153 .289 .348 .516 .469 .428 .226 .119	.312 .339 .494 .471 .419 .231 .120 .122	1. 41 1. 73 . 96 3. 87 1. 23 . 46 3. 77 2. 60 2. 17 1. 25	. 43 . 52 . 24 . 92 . 35 . 33 1. 22 1. 53 . 78 . 29 . 73	2. 4 T . 0 . 0	8. 1 5. 1 7. 1 6. 2 5. 4 2. 7 6. 5 6. 8 6. 9 8. 1 7. 0 6. 4	5. 6 3. 8 6. 4 5. 8 7. 5 7. 7 7. 4	7. 3 5. 4 6. 5 7. 1 5. 9 5. 7 2. 8 5. 4 3. 3 6. 9 7. 0 7. 4 5. 9	8. 1 5. 3 6. 7 7. 4 6. 3 5. 4 3. 2 6. 5 7 7. 3 8. 0 7. 6
											/ N.;				V.]					1	1			i	1	1	
January February March April May June July August September October November December	29. 89 30. 00 29. 90 29. 90 29. 90 29. 90 29. 90 29. 90 29. 90 30. 10	9 30. 43 7 30. 33 5 30. 44 7 30. 43 5 30. 16 6 30. 06 5 30. 16 0 30. 16 9 30. 23 5 30. 43	2   29, 49 9   29, 42 2   29, 62 9   29, 62 9   29, 75 6   29, 66 2   29, 72 3   29, 98	46. 3 44. 7 47. 5 51. 4 55. 7 54. 6 53. 6 51. 5 49. 9 45. 4	53. 0 51. 1 53. 8 58. 3 62. 8 59. 7 57. 6 59. 1 57. 1 52. 7	52. 2 51. 0 53. 5 57. 8 61. 7 60. 3 58. 6 58. 4 56. 4	55. 5 53. 6 56. 2 61. 8 65. 2 62. 5 60. 7 62. 3 59. 8 55. 0	43. 6 41. 9 45. 7 49. 5 54. 4 53. 6 52. 3 49. 7 48. 1 42. 3	49. 6 47. 8 51. 0 55. 6 59. 8 56. 8 56. 8 54. 0	64 64 66 75 74 75 69 65 65 76 76 76 76 70	34 35 34 43 49 47 48 45 41 34	42 42 45 48 52 53 52 48 47 42	43 42 48 50 54 54 52 52 54 52 52 54 49 44	43 48 50 55 53 50 49 46	90 94 96 91 90 89	70 73 81 76 73 81 83 73 77 75	83 73 74 84 77 78 78 82 75 80 81 80	. 276 . 267 . 303 . 338 . 396 . 400 . 393 . 343 . 322 . 268 . 257	. 280 . 274 . 336 . 367 . 415 . 413 . 394 . 366 . 352 . 293 . 284	. 278 . 342 . 366 . 428 . 408 . 403 . 365 . 354 . 313	5. 89 1. 77 2. 13 2. 23 1. 34 . 09 T . 04 . 49	1. 78 . 61 . 75 . 42 1. 08 . 09 . 09 . 1 . 04 . 04	3 .0 T T .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0	7. 6 5. 5 7. 6 5. 2 8. 2 8. 1 7. 9 2. 6 3. 5 4. 9	6. 6 5. 5 7. 1 4. 8 5. 8 3. 4 4. 4 3. 3 5. 0 5. 1	8. 2 5. 3 6. 7 5. 2 5. 9 3. 7 4. 7 3. 5 4. 0 4. 2	6. 7 5. 5 7. 2 5. 1 6. 1 5. 0 5. 9 3. 8 5. 4 6. 3
Year	_ 29. 9	9 30. 49	9 29. 18	49.4	55.8	55. 4	58. 5	47. 2			NSVI	ļ	<u> </u>			76	79	.321	, 340	. 347	26. 80	1.78	3 T	6. 3	5.4	5.6	6.0
											8' N.										ī		1	i		1	1
January February March April May June July August September October November Vear	- 29. 6 - 29. 4 - 29. 5 - 29. 6 - 29. 4 - 29. 5 - 29. 5 - 29. 5 - 29. 7 - 29. 7	4 29, 94 4 29, 8 9 30, 0 0 29, 9 6 29, 7 8 29, 8 3 29, 7 5 29, 8 2 29, 9 1 30, 0	2 28. 86 2 29. 05 2 29. 24 7 29. 06 6 29. 25 4 29. 3 2 29. 25 6 29. 25 6 29. 3 9 29. 15	1 24. 4 63. 43. 2 47. 0 4 64. 6 65. 70. 8 8 77. 1 1 68. 7 5 2 52. 8 3 36. 6	31.8 53.6 56.3 6 76.8 84.0 90.5 1 90.5 80.4 64.0 43.3	31. 7 54. 1 56. 3 76. 4 84. 6 89. 5 88. 1 78. 3 62. 3 44. 5 8	37. 5 60. 1 61. 2 81. 5 89. 1 96. 0 94. 5 84. 7 68. 8 51. 6	5 20. 0 39. 7 43. 6 59. 8 65. 1 65. 1 74. 2 73. 6 65. 9 65. 9 65. 9 74. 2 73. 6 73. 6 74. 2 75. 8 76. 9 77. 65. 9 78. 8 78.	0 28.8 7 49.9 5 52.7 7 70.7 2 85. 84. 7 75. 3 59. 42. 40.	8 66 9 75 4 80 5 92 1 103 1 108 0 104 3 97 6 84 75 1 65	-6 27 25 46 55 60 62 49 34 20 15	19 38 38 52 53 53 53 54 65 65 65 65 65 65 65 65 65 65 65 65 65	9 21 5 34 7 37 2 50 3 54 7 65 6 63 1 62 4 48 1 31 32	23 35 38 52 54 64 64 62 49 32	78 72 69 64 55 72 70 78 82 77	64 49 51 42 38 46 42 56 58 56 66	69 51 54 44 37 46 46 60 63 60 67	. 123 . 210 . 239 . 398 . 418 . 675 . 639 . 559 . 347 . 180	3 . 133 . 203 . 248 3 . 384 3 . 427 6 . 639 . 599 . 577 . 356 . 184 . 194	5 . 218	2 1.5 4.6 3.0 3.1.4 1.3 2 .6 5 2.1 4.0 9 4.6	6 .66 7 2.7 0 1.3 3 .9 9 .4 9 .2 1 .3 5 .8 2 1.4 2 2.8 0 .7	3 5.3 0 T 99 T 33 .0 88 .0 22 .0 11 .0 55 7.	5. 5. 5. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6.	9 6. 4. 55 6. 8 4. 8 4. 8 4. 8 4. 8 4. 8 5 6. 8 4. 8 4. 8 6. 8 6. 8 6. 8 6. 8 6. 8	5. 1 7 4. 9 5. 4. 9 5. 4. 9 5. 4. 9 5. 4. 9 7 3. 5 4. 9 2 4. 9 2 4. 9 3 4. 9	6.1 5.2 5.9 4.0 3.7 4.4 4.0 5.4 5.7 4.3 5.8

Table 16.—Annual meteorological summaries for the year ended Dec. 31, 1936—Continued

ERIE, PA.

	,	$[H=670 \text{ ft.}; H_b=714 \text{ ft.}; h_t=$ Wind													n <sub>e</sub> = 1:	22 ft.	; ha=	=166	ft.]										
						7	Wind	1												1	Numl	ber (	of da	ys					
		Bys	elf-re	gister		Nu	ımbe	r of v	wind	s, 8 a	ı. m.	and	8 p.	m.				Pre		Sr	10W		F	og	mı	axi- im	ire 32°		lec-
Month	Average bourly velocity	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	6.01 inch or over	0.04 inch or over	T or more	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperature or below	Thunderstorm	Aurora
JulyAugust	13. 6 14. 0 14. 5	W. W. W. N. N. N. S.	Mi. 422 477 388 388 522 224 322 377 366 466 52	SW. W. SE. SW. SW. SE. SW. SE. W. SE.	111 100 3 4 2 2 0 1 1 1 2 5 7 48	9 9 13 17 10 10	7 5 6 5 4 7 4 15 11 6 2 2	0 2 0 1 0 2 1 2 0 1 1 2 0 1 1 3	7 4 6 2 1 1 1 5 5 5 0 2 12 46		10 7 10 8 8 6 10 9 8	19 14 27 20 10 18 7 8 9	5 6 7 5 11 9 13 7 5 10 14 10	000000000000000000000000000000000000000	2 2 6 5 17 14 21 13 17 7 5 8	3 11 8 3 9 11 8 11 7 12 6 6	26 16 17 22 5 5 5 2 7 6 12 19 17	19 16 16 16 8 13 4 12 5 14 19 10	14 14 6 6 8 4 13 14 8	222 177 111 111 0 0 0 0 0 0 0 2 14 8 8 85	14 13 5 7 0 0 0 0 0 0 0 12 3	0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 1 1 4 0 3 0 0 0 0 0 0	0 3 0 0	15 20 3 1 0 0 0 0 0 0 0 4 49	0 0 0 0 0 0 1 7 3 2 0 0 0	26 18 11 0 0 0 0 0 4 17 21	4 4 4	0 0 0 0 0 0 1 0 0 0 0 0
							{H=	= 594	ft.: I			NAI				4 ft.:	h.=	=60 fi	:1										
March April May June July August September October November December	9. 3 10. 1 9. 5 10. 2 10. 9 10. 2 8. 5 9. 7 10. 9 12. 2 9. 7	NW. W. S.	32 34 31 27 33 29 30 32 30 38 32 30 38 32 30	N. W. NW. N. NE. N.	1 1 0 0 1 0 0 1 0 0 2 1 0 7	111 6 6 18 20 17 17 16 11 11 5 6	4 4 4 6 4 4 5 11 5 4 5 3	2 3 5 3 2 4 4 4 4 4 3 2 3 3 3 3 3 3 3	1 3 3 1 7 1 6 4 4 1 0 5	8 7 13 16 15 13 12 12 14 10 2 14	6 14 9 1 4 11 10 6 10 16 20 10	10 12 7 1 2 5 4 2 2 5 5 13 68	20 9 15 14 8 3 4 6 10 12 21 8	0 0 0 0 0 0 2 0 1 0 0 0 0	2 9 7 3 8 10 17 7 7 5 3 6 84	10 10 7 9 9 8 12 10 13 6 6 4	19 10 17 18 14 12 2 14 10 20 21 21 21	13 11 13 12 14 7 5 11 11 9 14 14 14	8 9 8 8 12 6 3 8 8 8 8 8 11	25 16 17 11 1 2 0 0 0 0 7 18 17	13 11 9 5 0 0 0 0 0 9 8	0 0 1 0 0 0 0 2 0 0 0 0 0 0 0 0 0 0 0 0	4 3 8 9 6 4 12 14 16 11 18	0 1 2 2 2 2 0 0 0 0 3 1 5	26 26 8 4 0 0 0 0 0 1 11 16 92	0 0 0 0 0 0 0 4 0 0 0 0 0	31 28 28 22 2 0 0 0 11 28 28	0 0 2 2 10 4 4 8 5 3 0 0	1 0 1 6 0 4 2 1 2 0 2 0 19
							[H	=44	ft.; E			EKA				ft.; l	na=8	9 ft.]											
January Februaly March April May June July Aucust September October November December		SE. SE. N. N. N. N. N. SW. N. E. SE.	34 32 34 30 30 24 24 18 24 22 21 24 34	SW. SW. N. S. SW. N. N. N. N. SE.	1 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	11 7 26 19 14 17 21 14 11 16 12 11	3 3 6 7 3 3 1 3 5 8 5	3 5 6 1 2 4 0 1 2 5 12 8 49	15 14 4 10 7 7 1 3 10 10 13 15	11 9 3 5 9 4 3 5 4 3 1 9	10 9 4 9 13 10 10 13 5 8 7 7	1 2 2 5 6 2 6 5 12 4 2 4	7 6 8 4 7 13 17 17 12 9 2 2	1 3 3 0 1 0 3 1 1 2 3 1	6 5 9 3 10 7 14 5 18 11 9 2	3 7 11 9 11 11 15 5 6 6 8 103	22 17 11 18 10 12 6 11 7 14 15 21	21 21 9 10 13 6 1 0 1 1 1 1 13 9	17 16 6 8 10 3 1 0 1 1 0 12 75	0 0 1 0 0 0 0 0 0 0 0	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 1 1 0 2 0 0 0 0 0 0 1	6 2 7 7 6 2 11 24 15 18 15 12	4 0 2 5 1 0 1 -5 9 14 12 7	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 1 0 0 1 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0
						1	H=	388 ft	.; H			SVII				ft.;	1a=1	16 <b>f</b> t.	1										
	9. 7 10. 6 10. 2 8. 1 9. 0 8. 7 8. 1 8. 3 8. 4 9. 8	NW. S. S. S. S. S. N. S. S. S. N. S.		NW. W. S. SW. NW. S. S. S. S. S. S. S. S. S. S. S. S. S.	1 1 2 1 0 2 1 1 0 0 0 1 1 1	6 10 15 7 9 18 9 8 13 10 9	3 7 4 7 7 10 7 4 8 4 6 8	5 5 7 3 7 9 5 2 6 7 2 6 6	8 7 7 4 5 0 2 6 6 6 6 5 2 12	5 9 10 15 15 6 7 23 20 19 10 18	10 2 6 7 10 8 21 15 7 8 7 3	12 10 7 8 5 6 9 1 4 5 8 4	13 8 6 9 2 3 2 1 0 1 14 1	0 0 0 0 2 0 0 1 1 0 1	5 9 11 8 18 16 13 17 11 9 13 11	7 5 11 5 10 15 11 11 5 11 11 5 11 11 5 113	19 15 9 11 8 4 3 3 8 11 6 15	12 9 11 9 5 5 6 3 10 12 7 11	6 9 5 4 5 5 3 8 9 5 7	10 10 2 2 0 0 0 0 0 4 2 2	5 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1	0 0 1 1 1 0 0 0 0 0 0 0 0 0	4 4 3 3 0 0 1 0 2 5 6 9	0 2 0 2 0 0 0 0 0 0 0 0 4 5 5	10 13 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 3 17 26 24 12 0 0 0	20 23 4 0 0 0 0 0 0 0 15 15	1 0 5 4 7 6 11 5 3 2 3 1	0 0 0 0 0 0 0 0 0 0

Table 16.—Annual meteorological summaries for the year ended Dec. 31, 1936—Continued Fort Smith, ark.

 $[\phi = 35^{\circ}22' \text{ N.: } \lambda = 94^{\circ}24' \text{ W.]}$ 

									[φ=	=35°2	2′ N.;	λ=	94°	24′ \	N.												
	F	ressu	re			7	[empe	ratur	e										]	Moist	ure						
		Extr	emes			М	ean			Ext	remes		Dev			elati midi		Vap	or pre	ssure	Pre	cipita	tion		Clou	dines	s
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24	Total snowfall	8 a. m.	Noon, local time	8.p.m.	Daylight
March	29. 41 29. 54 29. 52 29. 42 29. 46 29. 46 29. 47 29. 58 29. 73 29. 64	30, 05 29, 73 29, 90 29, 77 29, 63 29, 73 29, 66 29, 71 29, 95 30, 04 29, 91	29, 23 29, 02 29, 20 29, 26 29, 14 29, 33 29, 20	29. 7 48. 5 52. 0 65. 0 73. 3 77. 0 71. 7 53. 8 41. 4 41. 0	52.4	67. 7 78. 7 90. 2 93. 0 95. 3 82. 9 65. 2 51. 5 48. 3	98. 2 100. 6 89. 2 71. 1 58. 3	62. 5 69. 4 74. 5 76. 1 70. 4 52. 0 37. 4	37. 0 35. 9 57. 8 60. 8 73. 1 82. 2 86. 4 79. 8 61. 6 47. 8 45. 8	72 77 83 90 91 106 110 113 103 87 79 70	14 3 3 37 26 53 61 66 64 51 39 28 24	25 23 36 39 55 60 67 62 64 49 34 35	o 28 24 36 38 55 58 63 60 63 49 33 36 45	27 25 36 38 56 58 62 59 63 50 36 37 46	79 75 63 64 72 64 72 60 77 85 75 80	39 36 45 36 39 33 52 57 48 64	59 58 38 38 48 37 38 56 61 55 65	In. 0. 135 . 141 . 124 . 264 . 446 . 532 . 668 . 580 . 604 . 360 . 211 . 217	In. 0. 154 . 148 . 225 . 251 . 444 . 496 . 583 . 538 . 587 . 353 . 209 . 222 . 351	In. 0. 152 . 149 . 231 . 259 . 454 . 500 . 569 . 518 . 592 . 370 . 230 . 230 . 354	. 87 . 75 . 73 1. 96 2. 39 1. 12 . 50 8. 08 4. 03 1. 09	. 40 1. 32 1. 62 . 58 . 48 3. 71 1. 92 . 71 1. 70	In. 2.0 1.1 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0	6. 0 5. 0 4. 1 5. 3 2. 3 4. 3 3. 2 5. 5 4. 7 4. 3	5. 9 5. 8 4. 4 3. 9 5. 3 2. 5 3. 9 4. 1 6. 3 5. 3 6. 2 4. 8	5. 1 5. 3 3. 9 4. 8 3. 0 4. 6 3. 9 5. 9 4. 7 2. 9 5. 0	5. 7 4. 7 4. 1 5. 1 2. 7 4. 4 3. 8 6. 1 4. 7 3. 8
											WA:																
February March April May June July August Setpember October November December -	29. 04 29. 09 29. 13 29. 15 29. 17	29. 43 29. 40 29. 52 29. 57 29. 37 29. 45 29. 42 29. 50 29. 56 29. 71 29. 66	28. 26 28. 46 28. 58 28. 68 28. 71 28. 84 28. 85 28. 61 28. 67 28. 63	16. 9 12. 5 34. 7 39. 3 59. 2 64. 6 72. 0 69. 9 62. 1 46. 9 33. 3 30. 1	19. 5 44. 6	20. 3 42. 7 47. 9 68. 9 74. 2 84. 6 80. 5 70. 2	26. 5 25. 9 49. 9 53. 2 74. 8 80. 4 90. 7 86. 1 77. 5 61. 7 43. 6 40. 5	12. 9 8. 5 31. 2 36. 6 53. 6 58. 1 67. 2 66. 2 59. 4 44. 5 30. 0 26. 0 41. 2	19. 7 17. 2 40. 6 44. 9 64. 2 69. 2 79. 0 76. 2 68. 4 53. 1 36. 8 33. 2 50. 2	50 53 66 78 87 93 106 98 91 78 67 60 106	-18 -13 13 21 39 50 55 56 41 25 18 8 -18	14 10 29 32 48 51 57 61 56 43 29 26 38	14 31 33 48 52 57 59 57 44 30 29		62 61 74 81 85 83 85 78	57 47 45 40 51 58 62 69 72	80 63 64 48 47 41 51 66 72 76 75	0. 096 . 084 . 164 . 196 . 355 . 380 . 484 . 549 . 469 . 290 . 168 . 152	0. 106 . 095 . 187 . 204 . 355 . 401 . 480 . 520 . 494 . 306 . 175 . 170	0. 105 . 101 . 180 . 227 . 337 . 392 . 477 . 528 . 492 . 321 . 178 . 160	1. 55 4. 25 3. 03 2. 47 1. 57 2. 65 2. 14 3. 65 4. 82 2. 87 3. 10 2. 68 34. 78	0. 33 2. 33 1. 11 1. 17 1. 18 . 96 1. 60 1. 26 1. 50 . 79 2. 50 1. 49 2. 50	7. 8 9. 2 3. 5 2. 0 . 0 . 0 . 0 . 0 . 2 2. 8	8. 4 7. 3 7. 4 6. 6 3. 8 4. 0 3. 3 4. 1 4. 3 6. 5 6. 5		5. 9 6. 3 5. 0 5. 6 4. 0 4. 3 4. 0 4. 4 5. 7 4. 2 4. 1 4. 6 4. 8	7. 2 6. 6 5. 9 7. 4 4. 5 4. 7 4. 1 4. 4 5. 2 6. 1 6. 1 5. 7
											WOI 'N.;																
February March April April June June September October November December September December September December August Aug	29, 19   29, 32   29, 26   29, 25   29, 26   29, 24   29, 36   29, 51   29,	29. 82 29. 57 29. 68 29. 49 29. 39 29. 48 29. 43 29. 42 29. 72 29. 86	28. 64 28. 73 28. 74 28. 96 28. 78 28. 98 29. 00 28. 89 29. 04 28. 89	35. 1 33. 3 52. 8 56. 1 67. 3 75. 8 76. 5 77. 9 72. 4 55. 7 46. 5 43. 1 57. 7	49. 3 45. 2 69. 9 72. 3 79. 2 90. 4 90. 6 94. 9 84. 3 68. 7 58. 0 54. 9		55. 1 54. 3 74. 7 77. 8 82. 9 95. 3 95. 2 99. 1 88. 3 72. 2 62. 1 60. 2 76. 4	32. 8 30. 2 50. 7 51. 7 65. 1 72. 8 73. 7 76. 2 71. 4 53. 0 42. 8 40. 7	44. 0 42. 2 62. 7 64. 8 74. 0 84. 4 87. 6 79. 8 62. 6 52. 4 50. 4	80 80 90 94 90 107 104 112 101 88 85 72 112	26	38	29 - 28 - 35 - 40 - 60 - 61 - 50 - 39 - 40 - 48 -		74 64 65 85 68 77 66 82 84 77 84	50 - 54 - 32 - 34 - 55 - 40 - 45 - 33 - 54 - 52 - 60 - 47 -		. 257 . 322 . 567 . 605 . 698 . 632 . 666 . 380 . 265 . 244	0. 166 . 181 . 226 . 283 . 527 . 552 . 624 . 613 . 365 . 264 . 259 . 383		0. 67 . 45 . 63 . 99 9. 48 . 03 2. 35 . 23 7. 30 3. 72 . 46 1. 84	0. 32 . 36 . 44 . 96 4. 01 . 03 1. 29 . 23 4. 12 1. 66 . 15 1. 29 4. 12	T .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0	5. 0 5. 2	3. 3 4. 6 .3 2. 5 5. 4 2. 0 3. 1 1. 8 5. 1 4. 5 3. 4 4. 3 3. 4		3. 3 3. 8 2. 0 2. 7 5. 1 2. 0 2. 7 1. 8 4. 4 3. 9 4. 0 4. 4
											SNO, N.; λ				·.]												
February	29. 64 2 29. 68 3 29. 56 2 29. 51 2 29. 47 2 29. 48 2	30. 09   30. 05   30.	29. 36 29. 17 29. 43 29. 26 29. 25 29. 28 29. 34 29. 27 29. 26 29. 58 29. 58 29. 23	68. 8 63. 4 57. 7 47. 0 40. 8	69. 7 78. 2 84. 5 92. 8 91. 1 85. 3 74. 4 63. 4 49. 7	98. 3 1 97. 7 90. 5 76. 8 65. 8 51. 2	99. 3 92. 4 79. 8 69. 0 53. 9	41. 5 43. 4 46. 6 50. 7 56. 1 62. 0 69. 3 66. 9 50. 5 55. 3 43. 9 37. 8 52. 8	76. 5 84. 8 83. 1 76. 4 67. 6 56. 4 45. 8	70 70 82 91 100 106 110 107 105 97 80 64 110	32 34 38 47 50 58 57 52 48 33 30	44 45 48 46 48 49 47 48 42 38	45 47 47 43 47 49 50 45 49 45 40	46 46 45 38 42 44 43 40 47 45 41	92 87 83 68 60 48 51 57 72 83	70 56 46 31 29 24 25 26 44 52 71	66 48 37 23 21 18 16 19 40 49	. 293 . 309 . 334 . 317 . 338 . 350 . 355 . 325 . 338 . 268 . 232	. 338 . 332 . 285 . 326 . 359 . 361 . 304 . 350 . 302 . 249	. 313 . 323 . 310 . 243 . 274 . 300 . 279 . 256 . 326 . 303		0. 18 1. 21 1. 00 . 50 . 04 . 01 T T . 00 1. 17 T 1. 20	.0	5. 4 2. 0 3. 2 2. 7 2. 7 2. 5 . 5 1. 9 . 5 4. 1	7. 2 4. 2 4. 1 3. 3 3. 3 1. 9 1. 2 . 5 3. 0 1. 8 6. 1	6. 1 3. 9 4. 2 2. 4 2. 9 2. 1 1. 3 . 5 2. 8 1. 8 6. 0	5. 9 6. 6 4. 0 3. 8 2. 6 3. 0 2. 0 1. 2 .5 2. 8 6. 3

	1							[H]	=448						ft.;	hr=7	2 ft.;	h <sub>a</sub> =	94 f	t.]									
	-						Wind	1												1	Vum	ber	of da	ıys					
		By s	elf-re	gister		Nı	ımbe	r of	wind	s, 8 ε	ı. m.	and	8 p.	m.				Pre		Sı	low		F	og	mı	axi- un up.	ure 32°		lec-
Month	Average hourly velocity	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	6.61 inch or over	0.04 inch or over	T or more	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperature or below	Thunderstorm	Aurora
January February March April May June July August September October November December Year	Mi. 8.9 9.2 9.4 9.2 7.8 7.6 7.5 7.1 7.9 7.2 7.9 8.2 8.2	E. E. SW. E. E. E. SW.	Mi. 29 32 26 28 22 47 30 49 31 21 28 27	W. SW. SW. S. NW. SE. NW. NW. NW. W.	0 1 0 0 0 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0	4 4 5 3 3 1 5 3 6 4 4 4	3 7 5 7 14 10 13 6 7 7 7 9	23 20 20 20 26 19 17 29 25 18 14 29 260	2 2 3 8 9 0 6 9 5 8 2 4	2 3 7 4 3 3 8 5 4 4 4 1	10 9 8 4 3 21 14 7 9 10 13 7	4 5	11 8 10 8 2 2 2 1 2 8 9 7	0 1 0 0 0 0 0 0 0 0 0 1 0 0	9 10 13 15 9 20 14 13 6 14 17 10	13 10 11 9 15 8 13 18 13 6 4 7	9 9 7 6 7 2 4 0 11 11 9 14 89	7 5 5 6 7 4 7 2 11 8 4 9	11 33 34 55 44 41 10 63 77 51	3 6 0 0 0 0 0 0 0 0 0 0 1 0	1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 1 0 1 2 1 0 0 0 0 0	3 4 2 1 1 0 0 0 0 3 10 4 4 4	2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 1 1 2 21 29 30 16 0 0 0	18 21 0 2 0 0 0 0 0 0 0 0 0 0 6 6 9 56	9	0 0 0 0 0 0 0 0 0 0 0
						[H=	777 f	t.; H	[b=8			WA =69 ft		,		ı <sub>n</sub> =8	4 ft.]												_
January February March April May June July August September October November December	10. 8 10. 4 10. 2 8. 4 8. 1 7. 1 7. 4 8. 1 8. 6	W. W. W. NW. SW. NE. SW. NE. S. W. S. W.	30 35 28 34 24 29 24 31 23 24 28 30 35	W. W. W. NW. NW. SW. SW. NE. W. SW. SW. SW. SW. SW. SW. SW. SW. SW.	0 1 0 1 0 0 0 0 0 0 0 0 0	4	4 7 1 5 3 11 13 10 17 7 6 5 89	7 9 7 5 7 8 9 9 4 3 2 11 81	4 2 9 6 2 3 8 7 6 3 4 5	6 4 6 6 9 7 4 6 10 23 4 12	9 9 8 9 16 9 6 9 8 8 12 10	23 19 13 4 7 3 0 8 7 7 16 8	4 8 17 14 10 11 10 5 7 12 8	0 0 0 0 1 0 0 0 1 1 0 0 1	4 5 9 2 16 11 11 13 10 10 9 9	9 10 10 13 9 14 16 12 11 5 5	18 14 12 15 6 5 4 6 9 16 16 17	12 9 12 15 8 8 5 12 10 7 11	10 8 10 10 5 7 4 10 8 9 4 9	17 17 5 10 0 0 0 0 0 0 7 7	7 7 7 2 6 0 0 0 0 0 0 2 6	0 0 1 2 0 1 2 0 0 0 0 0 0	13 13 7 5 0 1 2 2 5 13 4 10	0 2 2 1 0 1 0 0 2 1 1 4	19 18 1 2 0 0 0 0 0 0 4 6	0 0 0 0 0 4 15 12 2 0 0	30 26 18 12 0 0 0 0 0 0 3 21 24	2 2 5 5 4 7 8 13 7 3 2 1	0 0 0 0 0 0 0 1 0 0 0 0 0 0
							[H=	=616	ſt.; H	FOF						ft.; ]	ha=1	10 ft	.]										
January February March April May June July August September October November December	11. 0 12. 0 8. 7 9. 6 9. 3 8. 8 9. 8 9. 9 9. 0 9. 4	N. N. S.	31 38 40 35 31 25 27 31 28 28 33 31	NW. N. N. SE. SE. SW. SE. S. N. N.	0 3 3 3 1 0 0 0 0 0 0 0	12 11 10 4 4 2 2 1 4 9 11 5	0 0 0 0 1 0 0 0 0 2 0 0 0 0 0 0 0 0 0 0	0 5 1 3 8 4 2 3 1 2 3 5	3 1 3 5 11 3 4 0 4 2 1 3 4 0 4 2 1 1 3 4 0	3 10 6 6 3 12 11 12 12 9 4 7	7 1 7 6 2 3 9 10 2 2 5 5 5	4 1 4 2 2 4 1 4 2 5 5 6	2 0 0 2 0 2 2 1 2 0 0 0 0	0 0 0 0 2 0 0 0 0 1 1 2 1 0	22 15 23 21 12 23 20 25 14 17 18 16	1 7 7 5 8 7 9 5 6 5 2 5	8 7 1 4 11 0 2 1 10 9 10 10	4 3 4 2 10 1 6 1 9 7 6 6 6 5 9	3 2 4 1 9 0 4 1 6 6 6 3 4 43	3 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 1	1 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 4 1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 3 0 0 0 0 0 0 0 0 0	0 0 1 2 0 28 31 17 0 0 0 107	11 19 0 1 0 0 0 0 0 0 0 2 6	1 1 2 3 14 3 8 2 5 2 1 1 1	0 0 0 0 0 0 0 0 0 0 0 0
							[H=	287 f	t.; H			SNO, ; hι=				ft.; b	1a=1	05 ft.	]										
February March April May June July August October November December	6. 4 5. 9 6. 8 7. 6 8. 1 7. 1 6. 8 6. 0 4. 9 4. 2 5. 0	E. E. NW. NW. NW. NW. NW. NW. NW. NW. NW.	25 28 24 30 21 24 16 20 18 14	SW. NW. NW. NW. SW. NW. NW. SW. W. SE.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	6 5 7 7 7 11 8 15 17 9 6 10 6	9 8 6 2 1 4 3 0 2 4 8 7	13 15 9 2 4 2 0 0 5 12 10 12 84	8 14 1 4 2 1 0 0 5 2 2 4 4 43.	1 1 0 1 3 3 0 1 1 5 2 3 2 1	4 2 2 2 3 1 3 3 2 4 2 5 3 3	1 3 1 3 12 2 2 5 3	13 12 34 39 34 38 28 38 31 22 16 14	2 0 0 2 1 0 1 1 3 2 7 2	12 5 16 14 21 18 23 27 28 20 23 11	3 10 9 10 7 6 7 2 1 7 4 3 69	16 14 6 6 3 6 1 2 1 4 3 17	3 2 1 1 0 0 0 5 0 9	7 13 2 2 1 0 0 0 0 5 0 8	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	111 5 11 0 0 0 0 0 0 4 6 14 51	7 3 6 0 0 0 0 0 0 0 0 2 6	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 1 11 17 27 29 20 6 0 0	0 0 0 0 0 0 0 0 0 0 0 2 2	0 3 0 0 0 0 1 2 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0

									[φ	=29°	18' N.	; λ=	=94°	50′	W.]												
	I	ressu	re				Гетр	eratur	·e					·						Moist	ure						
		Exti	emes			M	ean			Ext	remes		Dev poin			elati midi		Vap	or pre	ssure	Pre	cipita	tion		Clou	dine	SS
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local tame	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	00	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
January February March April May June July August September. October November. December. Year	29. 88 29. 99 29. 85 29. 92 29. 92 29. 89 29. 99 30. 14 30. 07	30. 33 30. 22 30. 38 30. 10 30. 04 30. 08 30. 10 30. 03 30. 24 30. 39	29. 44 29. 60 29. 50 29. 57 29. 72 29. 75 29. 73 29. 81 29. 86 29. 70	04.0	53. 1 66. 9 68. 3 77. 2 85. 6 85. 9 84. 0 74. 0 62. 9	51. 4 64. 9 67. 3 76. 1 84. 0 83. 0 84. 2	79. 5 87. 9	45. 4 59. 8 60. 4 70. 6 78. 3 78. 1 79. 7 77. 3 65. 0 53. 4 50. 9	64. 7 66. 3	72 78 80 83 94 93 94 93 87	28 28 28 51 46 63 70 71 71 63 51 38 38	61 61	46 59 58 68 73 75 74 74 62	60 60 69 73 74 74 73 62 53 51	90 86 90 85 85 78 82 81 82 81 91	81 78 77 71 74 67 72 69 73 68 70 82	85 84 79 71 74 72 74 73 76 84	In. 0. 331 . 316 . 501 . 496 . 689 . 798 . 851 . 849 . 824 . 556 . 393 . 396 . 583	In. 0.349 .340 .517 .512 .688 .814 .861 .850 .854 .579 .416 .411	In. 0. 356     . 341     . 521     . 541     . 703     . 821     . 833     . 840     . 815     . 580     . 426     . 393     . 598	1. 42 1. 89 1. 93 8. 90 . 88 4. 57 2. 52 4. 10 1. 68 2. 74	. 40 . 68 1. 18 2. 71 . 74 2. 51 1. 07 1. 04 1. 49 1. 72 1. 90		6. 6 5. 6 4. 6 5. 8 3. 0 4. 5 3. 9 4. 1 3. 6 5. 3 5. 6	6.0 5.1 3.1 5.2 1.6 3.4 3.6 3.7 3.1 4.3 5.4	6. 6 4. 6 3. 2 5. 0 1. 9 4. 3 4. 0 3. 8 2. 9 3. 6	5. 6 4. 0 5. 2 2. 1 5. 2 4. 2 5. 2 3. 7 5. 0
								(	GRA		UN( 'N.; )									1							
January February March April May June July September October November December	25. 23 2 25. 27 2 25. 35 2 25. 33 2 25. 40 2 25. 43 2 25. 48 2 25. 48 2 25. 60 2 25. 60 2	25, 70 25, 70 25, 75 25, 54 25, 55 25, 60 25, 59 25, 61 25, 68 25, 68 25, 68 25, 68 25, 68 25, 68 25, 68 25, 68 25, 68 25, 68	24. 76 24. 64 24. 88 25. 00 25. 06 25. 17 25. 22 24. 97 25. 07 24. 96 24. 94	21. 3 30. 7 35. 9 44. 0 53. 2 63. 8 67. 7 65. 7 55. 2 45. 0 28. 8 24. 2	32. 1 40. 9 51. 5 63. 1 75. 2 84. 0 86. 2 84. 5 74. 2 62. 4 47. 4 36. 5	32. 1 41. 9 53. 2 65. 2 77. 0 85. 3 87. 9 85. 5 76. 4 61. 4 45. 3 33. 7 62. 1		17. 8 27. 0 32. 4 42. 0 51. 6 61. 7 66. 6 64. 6 52. 3 42. 3 25. 2 21. 0 42. 0	27. 4 36. 6 44. 9 55. 2 65. 9 75. 8 77. 4 66. 6 55. 0 39. 0 30. 8 54. 5	51 58 68 81 91 103 102 98 90 81 63 50	3 12 25 20 36 43 54 55 34 30 18 8	18 24 22 29 31 42 50 51 39 32 21 20	21 24 22 30 27 38 47 51 38 32 22 22	22 23 20 23 23 36 46 48 37 33 22 24	88 76 58 57 44 48 56 60 57 62 72 84	52 32 3 30 4 18 1 22 2 28 3 34 3 35 3 56 6	50 31 22 16 20 28 28 29 28 38 39	. 129 . 120 . 165 . 176 . 278 . 371 . 379 . 249 . 181 . 112 . 108	. 178 . 149 . 234 . 327 . 384 . 242 . 182 . 115 . 118	. 128 . 111 . 126 . 129 . 218 . 330 . 341 . 235 . 192 . 116 . 125	0. 22 1. 02 . 57 . 45 . 24 1. 60 1. 13 . 72 . 52 . 21 . 57 7. 99	0. 10 . 28 . 26 . 23 . 20 . 26 . 92 . 34 . 31 . 31 . 18 . 15	.0	3. 2 3. 2 2. 2 3. 1 . 8 5. 6	5. 3 6. 8 5. 0 3. 2 3. 6 3. 7 2. 9 3. 1 4. 3 1. 8 5. 4	4. 5 4. 7 3. 6 3. 9 5. 6 4. 8 3. 4 3. 7 3. 5	4.7 4.7 3.1
											RAP N.; )																
July2	9. 26 2 9. 28 2 9. 18 2 9. 20 2 9. 23 2 9. 28 2 9. 26 2 9. 29 2 9. 36 2 9. 36 2	9. 69 2 9. 76 2 9. 56 2 9. 56 2 9. 56 2 9. 71 2 9. 74 2 9. 92 2 9. 79 2	8. 80 8. 74 8. 55 8. 92 8. 95 8. 95 8. 63 8. 74 8. 58	11. 4 32. 9 36. 6 57. 2 61. 1 69. 9 66. 3 59. 3 45. 1 32. 8 29. 7	18. 0 40. 9 46. 4 69. 9 73. 5 85. 5 79. 6 72. 0 54. 7 37. 7 35. 3	16. 9 38. 3 44. 3 67. 8 72. 1 83. 3 78. 2 67. 7 51. 7 35. 7	21. 9 45. 5 50. 1 74. 3 78. 7 89. 5 84. 8 75. 5 58. 9 42. 2 38. 8	8. 0 29. 0 34. 4 51. 4 55. 6 65. 1 63. 0 56. 2 41. 5 29. 7 26. 0	62. 8 67. 2 77. 3 73. 9 65. 8 50. 2 36. 0 32. 4	69 74 87 90 108 98 91 77 67 60	-10 7 22 36 45 52 55 40 25 12 8	7 27 30 48 51 57 59 56 41 27 25	11 28 32 48 49 55 57 55 43 28	11 8 27 32 32 46 50 55 57 59 844 8 828 8	82 778 5778 5773 44770 44770 4478 5588 5586 6686 6686 6688 6688 6688 66	73 75 59 6 57 6 17 4 14 4 18 4 18 4 18 7 18 7	64.57.991.24.552	069 157 175 356 381 483 512 469 276 159 146	195 345 359 449 489 473 300 164 162	. 078 . 153 . 201 . 330 . 372 . 464 . 486 . 523 . 307 . 163	2. 18 . 73 2. 27 . 72 2. 35 . 79 3. 91 7. 67 2. 77 . 43 3. 72		7. 3 3. 0 0. 1 .0 .0 .0 .0 .0 .8 3. 4 6. 5	8. 0 7. 2 7. 3 5. 4 5. 1 2. 2 4. 7 5. 3 6. 6 7. 4 6. 7	7. 7 7. 2 7. 6 5. 3 5. 3 4. 0 5. 0 4. 8 6. 8 7. 5	7. 9 6. 6 6. 7 4. 6 3. 6 3. 5 3. 8 4. 5 6. 1 6. 0	9. 3 7. 8 7. 0 7. 6 4. 9 4. 7 3. 4 4. 8 5. 4 6. 9 7. 2 7. 0
											N Β. Ν.; λ				]							<u>'</u>	'_				
January         28           February         29           March         28           A pril         28           May         28           June         29           July         29           August         29           November         29           Year         29	9. 16 29 9. 36 29 9. 34 29 9. 28 29 9. 29 29 9. 35 29 9. 35 29 9. 38 30 9. 40 29	. 73   28 . 72   28 . 72   28 . 75   28 . 70   28 . 71   29 . 60   28 . 80   28 . 87   28 . 91   28 . 85   28	3. 67 3. 51 2. 3. 95 3. 75 5. 58 5. 01 6. 96 6. 96	1. 2 27. 8 34. 4 55. 1 69. 2 8. 4 7. 7 8. 6 0. 8 5. 7. 9 3 4. 4 2	8. 0 33. 5 42. 1 65. 7 68. 2 81. 5 75. 4 75. 5 75. 4 75. 4 75. 4 75. 4 75. 4 75. 4 75. 4 75. 4 75. 4 75. 4 7	8. 5   133. 3   3   3   41. 5   4   5   6   7   7   6   7   7   7   7   7   7	14. 3 - 4 39. 5 4 66. 7 3 71. 9 4 73. 5 5 66. 3 6 60. 3 6 73. 1 5 74. 3 3 75. 4 3 3 76. 4 3 3 77. 5 4 77. 6 5 77. 7	5. 1 24. 3 30. 8 30. 8 49. 4 611. 4 633. 9 760. 9 764. 4 64. 0 38. 5 2	70. 6 33. 8 5. 9 1. 5 6. 4	43 - 64 70 87 88 104 92 90 73 61 55 -	1 16 3 35 40 4 54 5 40 5 21 3 10 2 -13 2	27 246 448 448 457 557 553 553 553 552 22 22 22 22 22 22 22 22 22 22 22 22	26   2 16   4 18   4 54   5 56   5	2 7	7 6-88 59 44 5-4 59 50 50 50 50 50 50 50 50 50 50 50 50 50	4 72 9 66 4 62 1 53 0 54 2 42 5 60 7 69 65 7 68 9 65	2 . 0 3 . 3 3 . 3 4 . 3 9 . 4 9 . 4 9 . 4 1 . 1	048	119	054   1 129   1 167   1 347   1 359   1 437   1 473   3 458   2 240   2 127	1. 45 1. 18 1. 26 1. 73 1. 24 1. 02 3. 28 2. 23 1. 2. 04 . 59 . 03	. 49 . 67 . 94 . 78 l. 41 . 70 2	7. 6 6. 7. 8 7. 9 8 9 9 9 9 9 9 9 9 9 9 9 9 9	3. 8 67. 5 77. 4 8 65. 4 66 65. 3 65. 5 76. 1 66. 9 8	5. 1 5. 1 5. 1 5. 1 5. 1 5. 1 5. 2 6. 3 5. 3 5. 4 5. 4 5. 4 5. 4 5. 4 5. 4 5	5. 0 6 7. 4 8 6. 6 6 6. 6 5 6. 8 4 4 6. 3 6 6. 2 6 7. 7 7. 4 8 7. 4 8 7. 4 8 7. 4 9 7. 4 9 7. 6 6 7. 7 9 7. 7 9 7. 8 9	3. 9 3. 6 7. 5 3. 0 3. 3 5. 7 4. 1 5. 4 5. 5 7. 2

Table 16.—Annual meteorological summaries for the year ended Dec. 31, 1936—Continued

#### GALVESTON, TEX.

							[H	=6 f	t.; H		4 ft.;					ft.; h	$n_a = 1$	14 ft.	]										
						-	Win	d 												1	Num	ber	of da	ys					
		Ву	self-re	gister		Nı	ımbe	er of	wind	ls, 8 a	a. m.	and	8 p.	. m.				Pre	ecip-	Sı	now		F	og	mı	axi- um np.	ure 32°	tri	lec- city
Month	Average hourly ve-	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	T or more	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperatu	Thunderstorm	Aurora
January February March April May June July August September October November December	10. 5 11. 5 11. 0 10. 4 10. 9 8. 9 11. 3 9. 8 10. 3 10. 6	N. S. S. S. S. S. N. N. E.	Mi. 40 32 28 39 32 35 29 25 33 23 32 34 40	SE. W. SE. E.	1 1 0 2 1 1 0 0 0 1 0 2 1	17 17 4 7 7 5 4 2 3 22 19 12	4 6 4 6 4 3 2 2 2 2 1 8 6 48	5	2 7 9 11 23 9 7 14 13 6 4 6	22 16 32 31 22 29 12 10	5 4 0 0 9 6 0 1 1	3 1 3 0 1 2 2 3 0 5 5	6 7 8 3 1 1 4 8 9 7 10	0	8 12 11 20	7 8 13 13 12 10 10 12 11 8 7 9	16 10 5 8 0 8 5 7 7 7 9	8 7 13	7 6 5 11 3 9 7 10 2 4 7		000000000000000000000000000000000000000	0 0 0 0 0 0 0 0	14 14 13 5 0 0 1 0 0 5 15 7	6 6 6 2 0 0 0 0 0 0 1 4 25	0 0 0 0 0 0 0 0 0	0 0 0 0 0 7 1 5 1 0 0 0	000000000000000000000000000000000000000	1 1 1 6 1 4 6 7 1 0 1	0 0 0 0 0 0 0 0 0 0 0
						[	H=4	,587			ND							=68 f	t. 1										_
January February March April May June July September October November December	4. 5 6. 5 7. 2 7 3 7. 7 7. 8 7. 2 6. 4 5. 6 5. 3 5. 1 6. 4	N. SE. SE. SE. SE. SE. SE. SE. SE. SE.	21 31 34 28 27 36 28 21 27 26 24 27	NW. SW. NW. SW. SE. SE. S. SW. SW.	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	16 10 13 9 16 9 7 7 14 11 15 5 11	2 0 2 2 4 1 2 5 8 1 4 2 3 3	0 3 4 2 6 12 10 3 3 2 2 2 3	9 12 13 22 19 26 22 25 17 15 15 7 202	4 6 7 5 3 4 11 8 7 6 5 5 5	2 5 3 4 4 3 6 0 4 2 3 4 4	11 13 6 11 2 4 2 1 10 14 6 82	18 8 11 4 7 0 2 5 6 11 12 23 107	0 1 3 1 1 1 0 1 2 0 0 0 1	11 5 12 13 17 14 16 14 20 17 24 11	9 10 12 10 10 10 12 14 6 7 5 11	11 14 7 7 4 6 3 3 4 7 1 9	6 10 5 4 4 9 10 11 4 5 2 7	2 8 4 3 1 6 7 5 4 2 2 6	10 6 4 2 0 0 0 0 0 0 0 2 9	6 4 4 1 0 0 0 0 0 0 2 7	0 0 0 1 1 1 0 0 0 0 0 0 0 0	4 1 0 0 0 0 0 0 0 0 0 0	3 0 0 0 0 0 0 0 0 0 0 0	10 2 0 0 0 0 0 0 0 0 0 0 0 3	0 0 0 0 2 19 24 17 0 0 0 0		1 0 3 3 9	0 0 0 0 0 0 0 0 0 0 0 0
							[H=	638 ft	.; H		ANI  7 ft.;						a=24	14 ft.	]										
July August September_	2. 1 12. 1 1. 5 1. 6 9. 3 8. 5 9. 6 9. 5 1. 8 3. 4 2. 5	SW. W. SW. NE. N. SW. E. S. SW. SW. SW. SW.	46 45 44 40 31 30 37 36 37 38 48	W. SW. SW. SW. SW. SW. NE. SW. SW. SW. SW. SW. SW. SW. SW. SW. SW	0 6 4 3 4 0 0 2 1 3 10 4 3 7	2 4 9 11 9 10 8 7 7 7 8 7 1	5 5 1 6 1 11 4 7 5 5 9 6 6	4 6 5 4 1 6 8 8 11 3 3 3 6 6	7 8 12 6 7 6 9 6 14 6 3 12 96	10 3 9 9 5 4 4 10 13 18 6 14	13 9 10 6 22 10 11 9 6 12 16 12 136	6	8 6 7 8 5 6 8 6 0 6 12 8 80	0 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 3 4 3 10 11 16 12 10 6 6 7 89	1 8 9 9 14 11 13 12 9 10 6 5	29 18 18 18 7 8 2 7 11 15 18 19	16 11 16 7 6 7 14 14 14 17	10 6 13 5 4 10 11 10 2	29 24 13 8 0 0 0 0 0 0 2 14 12	18 16 6 5 0 0 0 0 0 2 4 6 57	0 0 1 1 1 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0	10 5 6 7 2 3 0 6 12 9 3 8 71	0 3 0 1 0 0 0 0 0 2 1 0 2 9	18 23 5 2 0 0 0 0 0 0 0 7 5	0 0 0 0 0 1 13 11 2 0 0 0 27	30 27 18 14 0 0 0 0 4 22 25	0 0 2 0 5 5 5 8 10 7 3 0 0	0 0 0 2 0 0 0 0 0 0 0 0
							[H=	589 ft	:.; H		REE! .7 ft.;					)1 ft.;	; ha=	:141	ſt.]										
February 1 March 10 April 11 May 11 June 10 July 10 August 10	1. 3 0. 8 1. 7 1. 0 0. 3 9. 1 0. 0 9. 8 1. 5 2. 9 8	SW. SW. N. S. S. S. SS. SS. SW.	32 35 31 32 31 27 44 26 38 31 35	NE. NE. W. NE. SW. SW. NW. W. NE. W.	1 2 2 0 1 0 0 1 0 2 0 2	10 3 3 8 8 10 10 6 3 3 5 6	4 4 6 8 5 11 4 14 6 4 6 4 76	1 2 3 3 4 4 4 8 7 4 4 4 3 5 4 4 4 4 8 7 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1 2 11 8 10 7 9 11 10 2 1 5 77	11 9 7 11 16 13 11 11 21 14 5 13	18 20 12 3 10 9 12 6 3 15 16 16	6 3 7 8 9 11	6 7 6 12 3 4 3 6 12 15 2	0 0 0 0 0 0 0 0 0 0 0 0	8 5 5 5 2 8 8 13 7 11 8 8 7	3 10 5 7 6 13 13 10 7 7 7 3 4 88		8 10 11 11 8 6 14 10 11 3 10	6 5 7 8 5 3 11 7 8 3 11 5	222 115 111 100 0 0 0 0 0 0 0 0 5 13 111	11 8 6 2 0 0 0 0 0 1 1 5	0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12 2 2 3 0 2 0 4 4 4 8 4 7	0 0 1 0 0 1 1 3 0 7	23 25 8 4 0 0 0 0 0 0 0 8 13 81	0 0 0 0 0 0 0 0 0 5 1 0 0 0 0	31 28 24 18 0 0 0 0 0 11 25 28	0 0 1 3 6 5 7 9 6 3 0 0	0 0 0 1 1 1 2 0 0 1 0 1 0 1 0 0 1

 $[\phi = 36^{\circ}05' \text{ N.}; \lambda = 79^{\circ}57' \text{ W.}]$ 

				1							5′ N.;	λ=	79°5		V .]												
		ressu						eratur	е			-								Moist	ure						
		Extr	emes			Me	ean			Exti	emes		Dew poin			lati nidi		Vapo	or pre	ssure	Pre	ecipita	ation		Clou	dine	SS
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
January February March April May June July August September October November December	28. 94 29. 12 29. 13 29. 00 29. 02 29. 12 29. 14 29. 16 29. 17 29. 27	29, 55 29, 36 29, 52 29, 61 29, 26 29, 36 29, 38 29, 40 29, 47 29, 62 29, 73	28. 51 28. 10 28. 53 28. 73 28. 74 28. 77 28. 89 28. 85 28. 60 28. 69	43. 8 48. 7 63. 3 69. 1 73. 4 71. 6 64. 3 53. 7 38. 5 35. 6	0 37, 5 40, 3 57, 5 59, 2 78, 7 80, 9 85, 2 84, 1 78, 6 68, 1 52, 9 45, 0 64, 0	52. 0 56. 4 72. 8 76. 7 78. 0 77. 3 71. 3 59. 6 46. 3 40. 9	42. 9 45. 4 62. 2 64. 7 83. 6 85. 7 88. 9 87. 6 82. 1 71. 0 55. 9 49. 2	24. 9 39. 5 42. 0 54. 8 62. 2 67. 2 67. 0 60. 2 50. 3 35. 6 32. 8	35. 2 50. 8 53. 4 69. 2 74. 0 77. 3 71. 2 60. 6 45. 8 41. 0	99 96 92 80 76 65	3 -4 300 26 42 48 57 52 43 29 17 21	24 40 40 53 62 68 68 62 51 34 33	28 40 39 48 59 66 67 61 52 35 35	27 28 42 42 50 62 68 70 64 55 36 36 48	73	% 61 61 56 52 36 51 55 58 58 58 53 72 56		In. 0. 140 . 144 . 262 . 266 . 408 . 554 . 674 . 695 . 557 . 394 . 213 . 202 . 376	In. 0. 151 . 163 . 270 . 261 . 356 . 514 . 652 . 660 . 552 . 422 . 229 . 217	In. 0. 159 . 164 . 277 . 280 . 371 . 561 . 699 . 738 . 598 . 463 . 236 . 229	3. 98 4. 95 6. 19 37 3. 79 8. 01 2. 04 5. 46 2. 99 1. 51	3 1.55 1.55 2.20 .98 3.67 1.09 4.48 1.41 1.00 1.23	9.8 1 .5 1 .0 0 .0 8 .0 7 .0 9 .0 1 .0	6. 2 6. 9 5. 6 3. 2 4. 5 6. 5 5. 2 4. 1 5. 7 4. 1 6. 9	6. 4 6. 5 5. 8 2. 8 4. 5 5. 3 5. 3 5. 0 6. 6	5. 6 5. 3 5. 5 3. 1 5. 3 6. 2 6. 1 4. 0	6.0 6.7 5.9 3.1 4.6 6.0 5.5 4.8 5.4 4.6 7.1
											RISB ' N.; <u>.</u>																
March April May	29, 62 29, 64 29, 52 29, 50 29, 61 29, 69 29, 70 29, 67 29, 85	29, 93 30, 08 30, 22 29, 85 29, 93 29, 97 30, 02 30, 12 30, 24 30, 27	28. 71 29. 01 29. 24 29. 20 29. 20 29. 33 29. 26 28. 90 29. 06 29. 03	22. 4 20. 1 40. 8 43. 3 59. 6 66. 2 70. 4 69. 9 63. 0 50. 9 37. 6 33. 3	27. 5 26. 6 47. 6 51. 9 69. 9 75. 6 81. 4 80. 2 71. 7 60. 1 43. 2 38. 1 56. 2	27 1 27.0 47.3 51.0 69.7 73.5 79.9 77.5 70.6 57.4 41.7 37.6	32. 2 31. 6 53. 2 57. 9 76. 5 80. 1 86. 9 84. 3 76. 6 64. 5 48. 0 42. 3	18. 9 16. 6 37. 1 39. 3 54. 5 60. 8 65. 7 65. 6 59. 2 47. 3 33. 3 29. 9	25. 6 24. 1 45. 2 48. 6 65. 5 70. 4 76. 3 75. 0 67. 9 55. 9 40. 6 36. 1	44 53 73 84 92 93 103 96 89 77 75 59	-6 2 16 29 39 52 58 55 42 26 16 12 -6	15 12 33 32 47 56 60 63 56 44 23 26 39		63 58 46 28 28 41	75 65 66 70 72 79 79 79 69 72 72	57 61 53 48 53 48 55 60 59 53 64	59 66 61 50 58 53 63 65 67 58	. 202 . 196 . 347 . 455 . 536 . 585 . 469 . 318 . 170 . 145	.090 .204 .214 .356 .459 .506	. 094 . 222 . 236 . 372 . 470 . 542 . 595 . 493 . 339 . 176 . 164	5, 58 3, 32 6, 61 3, 61 1, 60 4, 61 5, 02 2, 97 2, 45 2, 00 1, 35 6, 06 45, 13	1. 65 1. 73 . 52 1. 37 1. 53 . 89 1. 20 1. 10 . 78 1. 44	10. 6 4. 8 T .0 .0 .0 .0 .0 T 1. 5	6. 6 8. 0 6. 6 6. 4 3. 7 5. 9 3. 6 5. 4 6. 0 5. 3 6. 7 5. 8	6. 2 5. 4 7. 4 6. 5 3. 1 4. 7 4. 3 5. 5 5. 6 6. 9 6. 1 5. 6	5. 8 4. 0 6. 6 6. 6 3. 1 5. 0 4. 8 6. 1 4. 8 5. 1 5. 4 5. 9 5. 3	7.2
											FOR ' N.;																
April May June July August September October November December	29, 91 29, 74 29, 82 29, 85 29, 74 29, 70 29, 84 29, 93 29, 90	30, 30 30, 25 30, 34 30, 13 30, 12 30, 17 30, 31 30, 44 30, 49 30, 49	29. 21 28. 93 29. 24 29. 35 29. 29 29. 35 29. 54 29. 47 29. 00 29. 17 29. 24	42. 5 57. 6 65. 4 68. 9 67. 2 60. 5 49. 6 35. 4 32. 8	42.7	1	33. 8 29. 3 51. 5 53. 6 72. 4 77. 2 83. 5 72. 7 62. 5 47. 3 42. 7 59. 0	35. 4 38. 0 50. 1 58. 5 62. 4 61. 7 55. 7 43. 9 30. 6 27. 3		53 46 71 78 91 88 100 94 90 78 72 57	-3	27 25 39	38 -40 -51 -54 -58 -61 -55 -46 -28 -25 -41 -		75 81 78 68 70 71 81 78 81 70 71	65		. 215 . 221 . 332 . 441 . 506 . 544 . 430 . 309 . 164 . 148	. 089 . 244 . 256		6. 95 3. 21 6. 10 3. 21 2. 39 3. 05 2. 33 4. 22 3. 87 3. 69 1. 21 6. 88	1. 95 1. 20 2. 07 1. 19 . 98 . 85 1. 59 1. 34 2. 97 1. 46 1. 63 2. 97	12. 8 5. 5 T .0 .0 .0	4. 8 5. 3 6. 3 5. 8 3. 4 5. 6 5. 8 6. 3 4. 9 4. 9 6. 7 5. 4	5. 5 . 5. 0 . 5. 7 . 6. 6 4. 4 . 5. 6 4. 4 . 5. 9 . 5. 7 . 6. 0 . 5. 3 . 5. 3		5. 5 5. 2 6. 5 6. 9 4. 1 5. 6 4. 9 5. 0 5. 9 5. 0 6. 0
											TER 5' N.;				V.]												
January February March April June June July August September October November December 3	80. 07   3 29. 91   3 80. 07   3 80. 05   3 29. 93   3 80. 03   3 80. 03   3 80. 07   3 80. 10   3	30. 50   4 30. 32   2 30. 51   2 30. 49   2 30. 19   2 30. 22   2 30. 25   2 30. 37   2 30. 37   2 30. 48   2 30. 48   2 30. 49   2 30. 50   2 30. 50   2 30. 50   2 30. 50   2 30. 50   2 50. 50	29. 37 29. 22 29. 48 29. 64 29. 65 29. 68 29. 82 28. 81 29. 49 29. 57 29. 62	40. 0 54. 0 57. 9 69. 2 75. 7 79. 7 79. 9 75. 8 68. 2 53. 6 50. 4	43. 8 59. 6 62. 1 72. 4 79. 1 82. 5 83. 4 79. 9 72. 1 58. 6 54. 3	40. 6 55. 5 57. 4 66. 8 73. 9 77. 7 78. 0 67. 8 55. 4	64. 3 73. 7 79. 9 83. 9 84. 2 80. 9 73. 7 61. 5 56. 9	35. 3 49. 6 52. 0 62. 9 69. 9 73. 7 74. 8 70. 9 65. 0 50. 1 46. 7	43. 1 41. 2 56. 0 58. 2 68. 3 74. 9 78. 8 79. 5 75. 9 69. 4 55. 8 51. 8	70 63 72 75 82 88 92 90 87 82 79 70	19 37 38 55 61 66 65 63 47 33	49 51 62 67 73 72 68 62 47 46	57 50 53 62 66 70 72 68 63 47 46	38 51 52 61 67 71 72 68 62 48 47	83 79 78 74 77 79 80 79 85	78	92 34 33 32 79 30 32 30 33 37 6	. 361 . 389 . 561 . 662 . 816 . 784 . 701 . 563 . 345 . 322	. 239 . 379 . 414 . 558 . 657 . 723 . 780 . 701 . 597 . 345 . 334	. 243 . 334 . 403 . 537 . 662 . 759 . 789 . 698 . 583 . 358 . 335	4. 19 4. 49 7. 24 . 97 2. 22 2. 76 5. 88 5. 03 5. 97 1. 98 10. 19	1. 21 2. 45 57 . 60 1. 34 1. 78 3. 11 4. 06 1. 22 1. 62 2. 95	1. 0 .0 .0 .0 .0 .0 .0	5. 3 7. 2 5. 6 4. 5 3. 6 5. 1 5. 4 5. 3 5. 6 5. 5 7. 1	6. 0 4. 3 3. 3 5. 3 4. 1 4. 2 5. 0 5. 0 4. 2 5. 7	5. 2 5. 3 5. 6 4. 9 4. 8 4. 5 4. 2	5. 2 6. 3 5. 7 4. 3 3. 7 4. 9 4. 3 4. 7 5. 2 5. 1 4. 7 6. 5

	1						1]	I = 89	)1 ft.;			ft.; h					ha = 5	6 ft.]											
							Wind	1												1	vum	ber	of da	ys			***		
		Bys	self-re	egister		Nı	ımbe	rof	wind	s, 8 a	ı. m.	and	8 p.	m.				Pre		Sr	now		F	og	Ma mu ten	1111	ure 32°		lec- city
Month	Average hourly ve-	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.61 inch or over	6.04 inch or over	T or more	0.01 inch or more melted	Ifail	Light	Dense	32° or helow	90° or above	Minimum temperature or below	Thurderstorm	Aurora
Jenuary February March March April May June July August September October November December	9. 4 7. 5 8. 2 6. 8 6. 2 6. 8 7. 1 8. 9	SW. SW. SW. NE. SW. NE. NE. SW. NE.	Mi. 35 27 34 29 21 31 42 22 23 26 26 26 23	NW. NW. NE. NW. NE. NW. NW.	3 0 1 0 0 3 0 0 0 0 0 0 7	6 2 6 10 1 6 4 3 6 10 10 10	15 16 9 11 8 13 4 5 17 18 9 28	2 5 1 6 7 9 6 3 3 5 1 4	0 3 4 8 3	5 9 9 5 16 13 7 15 14 7 6 4	12 9 21 15 12 12 17 22 12 19 15 8	8 5 10 6 1 2 10 5 5 8 10 6	11 7 7 7 3 2 9 4 2 3 8 1	0 1 0 0 1 1 1 1 3 1 1 0 0 9	10 7 7 8 18 13 5 8 13 9 12 8	8 10 7 12 13 10 17 15 8 11 9 4	17 10 0 7 9 8 9 11 9	13 13 16 11 6 12 15 10 8 7 7 15	12	5 6 4 4 1 0 0 0 0 0 0 0 0 0 1 1 1 17	3 4 4 6 0 0 0 0 0 0 1 1	0 0 1	13 11 12 13 3 10 7 10 15 7 6 18	6 4 4 2 0 1 0 1 3 0 2 10 3 3	6 2 0 0 0 0 0 0 0 0	0 0 0 0 7 11 15 12 4 0 0 0	24 24 5 4 0 0 0 0 0 1 11 17	5 2 3 11 13 7 3 1 0 0	0 0 0 0 0 0 0 0 0 0 0
							[H=	337 f	t.; H			RISB		- 1		ft · F	. = T	n4 ft	1							-		-	
Janusry February March April May June July August September October November December	7. 9 7. 3 8. 3 8. 9 7. 5 7. 2 6. 4 6. 2 6. 8 7. 0 8. 3 7. 3	W. NE. NE. W. NE. W. NE. W.	30 27 30 28 35 25 34 24 24 28 27 24	NW. W. W. SW. NE. NE. W. NW. NW.	0 0 0 0 1 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0	3 7 2 5 9 9 2 6 7	6 15 14 7 3 12 8 9 15 10 7 17	8 5 12 11 1 8 3 9 8 6 5 4 80	2 3	1 3 2 6 10 6 7 11 6 9 6 2	6 1 4 5 8 6 8 8 8 3 6 10 4	22 19 10 12 14 3 12 15 ( 9 16 15	15 9 7 12 12 6 10 3 6 9 8 8		7	11 8 10 11 11 11 13 14 7 4 10 5	13 13 17 14 3 9 5 10 13 14 17 17	17 10 12 16 6 12 6 17 9 10 7 11	13 9 11 13 5 8 6 14 7 7 6 10	13 7 33 4 0 0 0 0 0 0 1 9 5	11 6 2 1 0 0 0 0 0 0 0 2 2 2	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	10 7 13 6 1 4 5 10 10 14 8 14	0 0 1 0 0 0 0 0 1 0 1 0 3	12 16 0 0 0 0 0 0 0 0 0 0 2 2	0 0 0 0 2 3 8 8 0 0 0 0	29 27 7 2 0 0 0 0 2 16 19	0 0 2 4 6 7 9 12 1 1 0 0 42	0 0 0 0 0 0 0 0 0 0 0 0
							[H=	= 58 ft	; H	HAI						ſt.; h	a = 10	4 ft.]											
January February March April May June July August September October November December Year	9, 1 7, 7 8, 7 9, 6 9, 1 8, 0 7, 3 7, 3 7, 9 7, 7 9, 3 8, 8	NW. N. S. S. S. S. S. S. S. S. N. N.	30 26 37 30 25 24 27 25 27 27 27 27 34 28	NW. NW. S. NW. SW. NW. NW. NW. NW. NW.	0 0 1 0 0 0 0 0 0 0 0 1 0 0 2	9 8 9 3 4 9 3 11 10 6 8 11	1 3 4 4 2 4 9 4 3 5 0 3	0 1 0 0 0 0 4 1 0 1 0 0	0 0 2 1 0 1 2 2 2 0 0 1	6 3 7 6 13 6 3 5 7 11 6 4	3 9 3 8 2 3 2 3 3 5 5 2 48	3 1 0 2 0 2 3 3 2 6 1 3	9 3 6 6 10 5 5 2 3 10 7 69	0 1 0 0 0 0 0 0 0 0 0	13 13 7 6 14 10 12 9 8 13 11 11	4 4 9 7 13 9 11 15 10 6 10 5	14 12 15 17 4 11 8 7 12 12 9 15	13 10 16 16 8 10 6 14 13 9 8 14	10 9 11 11 6 8 6 10 8 6 7 12	10 8 5 3 0 0 0 0 0 0 4 2	7 6 3 0 0 0 0 0 0 0 2 1	0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9 13 21 10 4 6 12 11 10 11 8 10	0 0 4 0 0 0 0 0 0 0 1 0 0 1	12 17 2 0 0 0 0 0 0 0 0 0 3 4	0 0 0 0 3 0 4 3 0 0 0 0	24 25 8 5 0 0 0 0 0 5 18 21	0 0 1 1 8 4 9 9 3 0 1 0	0 0 0 1 0 0 0 0 0 0 0 0
							[H	[ = 7 f	t.; H			ERA				; ha=	= 50 ft	.]											_
February	15. 2 14. 0 14. 1 12. 3 11. 3 11. 8 10. 2 11. 9 14. 4 15. 3 14. 7	NW. N. SW. NE. SW. SW. NE. NE. N.	51 49 34 41 28 58 28 80 37 42 38	NW. NW. NW. NW. NW. NW. NW. S. NW. SE.	8 5 8 2 3 0 4 0 2 4 3 5	10 18 1 2 3 6 4 3 2 10 15 21	11 12 8 25 27 13 6 9 21 18 10 18	4 3 4 5 8 7 2 7 8 10 0 1	2 1 6 1 3 4 1 6 1 4 2 6 3 7	5 4 15 9 3 12 8 11 11 4 5 5	6 11 15 9 13 13 27 18 10 9 8 3	3 11 5 4 3 8 4 4 4 2 9 5	12 6 2 4 1 2 6 2 3 5 11 2	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12 10 9 15 17 11 14 15 9 13 12 11	6 4 9 7 8 11 10 8 12 7 9 3	13 15 13 8 6 8 7 8 9 11 9 17	13 13 8 9 10 11 10 10 13 6	10 10 11 3 6 7 10 6 9 13 3 12	2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 2 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 2 2 1 1 0 0 0 0 0 0 3	3 2 4 0 0 0 0 0 0 0 0 4 13	5 1 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 2 1 0 0 0	9 12 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 4 4 4 1 4 8 4 3 0 0 2	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Table 16.—Annual meteorological summaries for the year ended Dec. 31, 1936—Continued Havre, Mont.

 $[\phi = 48^{\circ}34' \text{ N.}; \lambda = 109^{\circ}40' \text{ W.}]$ 

									$[\phi =$	48°3	4′ N.;	λ=	109°	40′	W.J												
	F	ressu	ге			7	Гетр	eratur	·e										]	Moist	ure						
		Extr	emes			M	ean			Exti	remes		Dev poin			elati midi		Vap	or pre	ssure	Pre	ecipita	tion		Clou	dine	SS
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
January February March April May June July August September. October November. December.	27, 31 27, 28 27, 37 27, 35 27, 41 27, 54 27, 30	27. 86 27. 70 27. 75 27. 72 27. 62 27. 53 27. 71 27. 75 27. 86 27. 89 27. 91	26. 92 26. 76 26. 97 26. 83 27. 02 26. 95 27. 09 26. 78 26. 85 27. 16 26. 89	55. 8 65. 4 57. 3 46. 5 40. 0 29. 1 17. 3	55. 2 41. 3 22. 5	10. 2 -8. 8 34. 7 50. 1 75. 0 76. 8 92. 2 81. 1 67. 6 53. 9 37. 2 20. 0 49. 2	19. 7 -2. 2 40. 5 53. 6 79. 2 80. 3 96. 3 96. 3 84. 3 73. 2 60. 9 46. 8 27. 5	-23. 5 20. 4 28. 2 47. 6 53. 4 63. 5 56. 5 43. 5 34. 9 22. 9 8. 4	-12. 8 30. 4 40. 9 63. 4 66. 8 79. 9 70. 4 58. 4 47. 9 34. 8	\$46 44 59 86 98 107 107 97 94 85 74 56	-24 -47 -11 -8 37 39 51 45 27 -16 -27	25 38 44	-8 22 28 35 40 42 46 35 31 23 15	° 7 7 -10 21 28 32 39 38 42 23 13 25	% 91 98 82 80 63 66 48 70 65 63 70 76	56 49 27 32 21 36 32 46 51 74	59 48 23 30 16 29 31 46 57 74	In. 0. 062 . 019 . 111 . 146 . 228 . 296 . 325 . 205 . 144 . 079 . 169	In. 0. 072 . 034 . 120 . 161 . 207 . 255 . 273 . 312 . 211 . 175 . 128 . 094 . 170	In. 0.065 .029 .118 .166 .185 .248 .237 .281 .201 .166 .125 .088 .159	. 78 . 59 . 44 . 44 1. 55 . 11 1. 50 . 14 . 73 . 23 1. 50	. 26 . 36 . 19 . 26 . 69 . 04 . 85 . 07 . 46 . 12 . 70	12. 6 9. 0 1. 8 . 0 . 0 . 0 . 0 . 0 2. 0	4. 7 6. 5 3. 5 5. 0 2. 9 3. 5 4. 2 4. 5 3. 3 5. 9	5. 3 6. 3 6. 0 4. 4 4. 3 2. 5 3. 8 4. 5 5. 3 3. 9	4. 6 6. 1 5. 2 5. 6 5. 1 3. 6 4. 1 4. 6 3. 3	5. 2 6. 1 5. 7 4. 4 4. 8 3. 3
											ENA				v.]												
January February March April May June July August September October November December	25. 66 25. 71 25. 82 25. 78 25. 80 25. 81 25. 86 25. 85 25. 91 26. 07 25. 73	26. 09 26. 05 26. 09 26. 06 26. 04 26. 03 26. 13 26. 18 26. 17 26. 35 26. 05	25. 16 25. 28 25. 38 25. 40 25. 46 25. 56 25. 64 25. 25 25. 43 25. 72 25. 43	25. 5	48. 6 67. 0 68. 1 83. 9 74. 7 62. 3 52. 0 30. 1 29. 2	24. 9 4. 7 35. 5 52. 0 68. 7 71. 0 84. 2 77. 4 64. 7 53. 2 30. 3 29. 0 49. 6	29. 9 10. 9 40. 6 54. 9 71. 9 74. 2 89. 4 81. 2 68. 6 59. 0 36. 1 34. 8 54. 3	-7. 0 23. 1 32. 6 45. 9 51. 1 60. 0 54. 2 44. 2	23, 2 2, 0 31, 8 43, 8 58, 9 62, 6 74, 7 67, 7 56, 4 47, 6 27, 8 27, 2 43, 6	51 50 80 90 96 100 91 87 78 53 56	-9 -36 -13 -10 35 34 49 44 29 16 -4 -12 -36	-7 15 26	-3 18 28 36 43 48 47 36 30 21 16	-2 18 28 35 41 47 45 34 30 22 16	66 55 63 65 68 80 64	74 50 48 35 44 30 40 41 46 68 60	73 48 44 33 38 30 35 36 44 71 60	.040 .090 .152 .209 .278 .307 .284 .210 .163 .105	. 116		0. 57 1. 51 . 45 . 99 . 89 2. 28 . 69 . 90 . 84 . 39 . 69	. 36 . 23 . 49 . 41 . 77 . 27 . 42 . 37 . 43 . 15 . 32	31.1	6. 9 8. 1 7. 3 6. 6 5. 0 5. 3 3. 4 3. 7 4. 0 4. 3 5. 7 7. 9	6. 0 6. 2 4. 5 4. 3 4. 8 5. 2 5. 6 8. 5	6. 6 6. 7 5. 5 4. 5 4. 7 5. 2 7. 4	8. 0 7. 7 8. 1 6. 8 5. 9 5. 8 4. 8 5. 0 4. 5 5. 1 5. 8 8. 3 6. 3
					-						LUL N.; λ	,			.]												
January 2 February 2 March 3 April 3 June 3 July 2 August 2 September 2 October 2 November 2 December 3 Year 2	29. 86 3 30. 00 3 30. 00 3 30. 00 3 30. 00 3 39. 98 3 39. 95 3 39. 95 3	0. 64 2 0. 13 2 0. 09 2 0. 11 2 0. 11 2 0. 08 2 0. 03 2 0. 00 2 0. 02 2 0. 15 2 0. 18 2	29, 30 29, 76 29, 87 29, 94 29, 90 29, 88 29, 85 29, 79 29, 68 29, 65 29, 80	70. 2 71. 6 72. 5 73. 5 76. 3 77. 9 78. 2 77. 3 74. 5 71. 8	74. 9 74. 4 75. 3 75. 4 79. 0 80. 2 81. 0 80. 9 80. 8 77. 7	71. 5 71. 6 71. 8 72. 7 75. 8 77. 0 77. 6 76. 9 74. 1 72. 5	77. 1 76. 8 76. 9 77. 4 80. 8 82. 0 82. 3 82. 7 82. 5 79. 1 75. 8	69. 5 72. 3 73. 5 74. 4 74. 0 72. 3 70. 6 68. 9	73. 6 71. 8 72. 2 72. 6 73. 4 76. 6 77. 8 78. 4 77. 4 74. 8 72. 4	82 82 81 82 81 83 84 84 84 85 83 79	60 62 63 66 70 71 72 69 63 62	62 62 62 66 66 66 67 68 70 63 61	61 63 63 66 66 66 68 71 64 62	63 61 62 62 66 66 66 68 70 63 63	76 71 71 68 71 70 70 72 78 69	63 63 65 67 65 63 62 66 66 72 66 66 66	75 71 73 70 72 70 69 72 79 69 69	. 564 . 550 . 566 . 560 . 642 . 648 . 665 . 691 . 722 . 584 . 544	. 542 . 572 . 586 . 640 . 644 . 654 . 697 . 750 . 588 . 557	. 579 . 545 . 566 . 558 . 638 . 645 . 642 . 682 . 732 1	. 72 . 82 . 48 1. 11 1. 26 1. 69 3. 16	1. 34 . 53 . 73 . 51 . 52 . 25 . 11 . 11 . 27 4. 08 1. 00 . 94 4. 08	.0	4. 3 6. 3 5. 9 5. 7 5. 6 4. 6 4. 5 4. 4 5. 5 6. 6	4. 5 7. 0 5. 3 7. 2 4. 9 4. 2 4. 6 5. 0 5. 1 6. 3	5. 1 6. 6 5. 5 5. 6 5. 6 5. 8 4. 8 4. 1 3. 6 5. 7	4. 1 4. 7 4. 9
									$H$ $[\phi=2]$		TΟN N.; λ				.]												
January 2: February 2: March 2: April 2: May 2: June 2: July 2: July 2: September 2: October 2: November 3: December 2: Year 2:	9. 89 30 9. 79 30 9. 91 30 9. 82 30 9. 83 30 9. 83 30 9. 84 30 9. 81 29 9. 91 30 9. 90 30	0). 24 2: 1). 12 2: 1). 25 2: 20. 02 2: 20. 00 2: 20. 00 2: 20. 01 2: 20. 01 2: 20. 01 2: 20. 02 2:	9, 36 9, 50 9, 50 9, 50 9, 51 9, 61 7, 61 7, 62 7, 71 8, 61 7, 62 7, 71 8, 61 7, 71 8, 61 7, 71 8, 61 8, 71 8,	45. 5 5 6 7 5 9 9 8 8 6 8 6 7 7 5 9 8 8 7 7 6 8 8 7 7 6 8 8 6 8 6 8 2 3 7 7 6 8 8 7 7 8 6 8 8 7 7 8 9 8 9 8 9 8 9 8 9 8 9 8 9 8 9	71. 3 78. 1 88. 3 85. 0 88. 0 84. 1 73. 2 62. 8	8	59. 3 74. 6 76. 6 831. 2 91. 8 991. 9 91. 9 777. 0 86. 7 63. 9	40. 9 57. 5 67. 2 67. 2 773. 9 8 775. 2 8 772. 6 8 69. 7 6 8 1 8 1 8 1 8 1 8 1 8 1 8 1 8 1 8 1 8	51. 3 50. 1 66. 0 67. 0 74. 2 82. 8 81. 9 83. 6 680. 2 68. 4 57. 4 55. 8	81 82 86 89 88 98 95 99 96 88 84 77	19 46 39 60 68 68 70 58 48 32 32	38 53 53 65 69 72 71 66 43 46	41 40 51 48 63 66 69 58 55	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	78 680 582 489 681 488 689 689 689 689 689 689 689 689 689 6	34 32 33 33 33 55 36 32 37		430 437 626 723 805 808 774 462 313 342	285 406 378 587 655 738	1	2. 11 2. 31 2. 03 1. 55 . 53 5. 12 2. 95 3. 56 1. 06 2. 15 5. 81	0.75 .78 1.32 1.09 4.53 .39 1.82 2.46 1.52 .95 .99 1.86 4.53	.0	7. 2 5. 8 5. 2 6. 0 3. 3 4. 9 4. 5 3. 8 4. 1 6. 1 6. 7	5. 5		5. 3 7. 0 5. 7 4. 7 6. 2 3. 7 5. 6 6. 0 4. 2 5. 4 6. 0

'Table 16.—Annual meteorological summaries for the year ended Dec. 31, 1936—Continued HAVRE, MONT.

							[H=	=2,488	3 ft.;	II <sub>b</sub> =		7 ft.;				=3 ft	; ha	=67	ft.]										
							Wind	i												N	Juml	ber (	of da	ys					
		Bys	elf-r€	egister		Nı	ımhe	er of	wind	s, 8 a	ı. m.	and	8 p.	m.		- Composition of the Composition		Pre		Sı	10W		F	og	Ma mu ten		1re 32°		lec- city
Month	Average hourly ve-	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	T or more	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperature or below	Thunderstorm	Aurora
January February March April May June July August September October November December	7. 4 10. 7 9. 7 10. 7 9. 6 8. 3 7. 6 9. 0 10. 0 11. 6 10. 3	W. SW. E. SW. E. NW. SW. SW. SW.	Mi. 30 28 32 32 32 40 26 36 32 41 33	SW. NW SW. SW. SW. SE. W. SW. SW.	0 0 3 1 2 1 2 0 1 1 3 4	2 3 2 3 2 4 6 4 3 2 1	8	19 5 19 15 14 6 19 7 9 4 18	1 0 1 4 3 2 5 4 3 0 0 1 2 4 2 5 4 2 2 4 2 4 2 4 2 4 2 4 2 4 2 4	0 0 1 0 2 1 3 1 1 0 0 0 0	16 11 17 7 13 8 8 4 12 16 25 17	11 15 13 8 7 9 10 7 12 11 12 16	13 16 16 10 7	2 4 0 5 1 0 0 1 2 1 2 0	10 13	13 8 14 14 12 15 11 8 10	12 4 6 2 3 5 10 5 17	9 7 7 10 5 9 6 5 4 7	4 4 2 7 0 7 1 4 2 5	17 18 12 8 0 0 0 0 0 5 4 11	10 11 8 4 0 0 0 0 0 0 4 3 7	0 0 1 1 1 0 0 0 0 0 0 0 0 0	2 8 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 0 0 0 0 0 0 0 0 0 0	21 27 8 5 0 0 0 0 0 1 4 15	0 0 0 0 7 5 26 8 1 0 0 0 47	29 27	0 0 0 0 5 5 7 6 3 0 0 0 0	1 1 0 6 0 2 0 1 2 4 1 0
						[]	H=4	,090 f	t.; H			ENA				78 ft.	: h.=	= 111	ft.1										
January February March April May June July August September October November December	7. 3 5. 8 9. 9 8. 3 9. 9 8. 8 4. 7. 6 7. 9 6. 9 4. 7 8. 1 7. 8	NW. SW. SW.	31 27 35 31 38 30 38 30 24 24 23 32	SW. SW. SW. SW. SW. SW. NW. NW. NW. SW.	0 0 3 0 2 0 0 2 0 0 0 0 1	6 11 7 6 3 1 3 7 6	2 3 2 3 6 3 7 1 3 6 0 0	0 3 1 1 4 7 2 5 2 3 1 0	1 0 1 0 1 1 2 1 0 0 0 0 0	1 1 0 3 4 3 6 3 0 3 0 4 28	24 12 24 20 32 22 22 28 21 17 20 25	15 5 17 12 5 11 7 6 19 14 10 16	11 18 9 15 7 12 13 10 7 12 18 14	2 5 1 0 0 0 0 0 1 2 0 3 0	3 3 0 4 8 7 9 13 12 11 8 1	4 7 12 10 12 12 17 8 10 10 8 6	24 19 19 16 11 11 5 10 8 10 14 24	8 17 7 8 9 9 5 6 7 7 10	6 8 3 6 6 6 6 6 5 4 4 4 4 4 5	21 25 17 5 2 1 0 0 1 5 9 20	7 17 6 3 0 1 0 0 1 7 9	0 0 0 0 0 3 1 0 0 0 0 0 0 0 0 0 0 0 0 0	0 2 0 0 0 0 0 0 0 0 2 1	0 0 0 0 0 0 0 0 0 0 0	15 23 5 4 0 0 0 0 0 0 7 9	0 0 0 0 1 4 16 3 0 0 0 0	24 26 23 10 0 0 0 3 11 28 25	0 0 1 1 5 8 13 9 3 0 0 0	0 0 5 5 0 2 0 1 0 2 0
							[H=	=12 ft	.; H			DLU h <sub>t</sub> =8				t.; ha	=100	) ft.]											
JuneJuly	10. 4 10. 3 11. 5 9. 6 10. 2 10. 8 8. 7 7. 4 9. 8	E. E. E. E. E. E. E. E.	26 30 35 27 30 23 24 30 25 24 30 37	W. W. NE. NE. E. E. E. NE. NE.	0 0 1 0 0 0 0 0 0 0	6 7 5 4 0 0 0 0 1 4 6 1	18 10 10 23 16 21 9 6 10 14 17 6	23 11 37 23 46 30 52 52 45 26 33 52 430	7 2 2 1 0 2 0 2 0 2 0 2 1 2 1 2 1 2 1 2 1	5 8 2 2 0 2 0 0 1 5 0 0	1 3 0 3 0 3 1 1 1 4 1 0	1 6 0 2 0 1 0 0 1 3 0 1 1 1 1 1 1 1 1 1	1 6 4 1 0 0 0 0 0 0 2 0 1	0 5 2 1 0 0 0 1 1 1 2 1 0	13 15 9 9 5 9 13 9 13 5 13 5	11 11 7 11 17 12 21 16 19 17 10 18	7 3 15 10 9 9 1 2 2 6 7 8	10 8 17 13 18 10 24 14 14 14 19 24	6 5 10 6 13 5 9 6 8 14 6 16	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	1 2 1 0 0 0 0 0 0 0 0 2 0 1	0 0 0 0 0 0 0 0 0 0 0
			1					0.64	TT			STO:							1	- 1				1			- 1		
January February March April May June June August September October November December	12. 2 12. 8 11. 3 10. 9 9. 9 8. 9 10. 9 11. 4 12. 3 12. 4	N. N. S.	32 27	NW. N. SW. E. NE. NE. NE. NE. NW. NW.	1 2 1 1 2 0 0 0 1 1 1 1 1 0 0	6 8 5 4 2 3 0 3 2 10 7 8 5 8	H = 5 8 5 4 4 7 6 6 5 4 8 7 4	1 4 3 3 8 2 1 4 6 6 2 5 3 4 2	H <sub>b</sub> = 3 5 5 7 8 3 4 1 4 3 3 8 8 54	5 4 8 8 3 10 12 9 10 4 3 2 78	ft.; h	4 0 0 1 0 0 3 2 0 2 3 0 2 0	3 2 2 2 2 1 3 1 3 1 1 3 2 2 2 2 2 1 1 3 1 1 1 2 2 5	0 0 0 0 1 1 2 0 0 0 0	14 7 8 12 5 17 7 8 4 14 12 7	3 5 9 11 15 11 12 16 17 9 6	14 17 14 7 11 2 12 7 9 8 12 14	14 11 8 5 15 3 11 8 13 3 9	9 6 6 5 14 3 11 5 8 2 6 8 8 8 8	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	18 17 11 13 5 1 2 2 2 5 4 8	2 0 3 3 0 0 0 0 0 1 0 2 11	1 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 22 15 23 10 0 0 70	0 0 0 1 1	1 2 1 3 8 3 14 6 11 1 1 2 53	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

									[φ≃		1' N.				W.]												
	]	Pressu	re				Гетр	eratur	е											Moist	ure						
		Exti	emes			M	ean			Ext	remes		Dev poin			elati mid		<sup>17</sup> ap	or pre	ssure	Pre	cipita	tion		Clou	dines	38
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8a.m.	Noon, local time	8 p. m.	Daylight
January February March April May June July August September October November December	28. 71 28. 47 28. 66 28. 58 28. 53 28. 55 28. 55 28. 57 28. 64 28. 75 28. 64	29. 08 28. 97 28. 93 28. 98 28. 85 29. 05 29. 23 29. 22 29. 05	27. 94 27. 89 28. 19 27. 96 28. 22 28. 24 28. 14 28. 12 28. 35 28. 16	32. 6 55. 9 62. 0 73. 3 65. 8 55. 2 36. 3 25. 8 20. 0	48. 5 70. 5 77. 6 94. 9 82. 5 74. 0 54. 1 35. 5	37. 0 48. 6 72. 3 80. 0 96. 2 85. 1 72. 9 53. 1 32. 4 23. 6	3. 3 43. 4 54. 0 75. 8 83. 5 99. 6 88. 7 79. 0 60. 5 39. 4 29. 9	51. 8 57. 3 69. 3 63. 8 53. 0 33. 1 21. 7 14. 1	-5.4 33.5 41.8	83 60 50	-26 -33 7 7 7 36 40 56 50 32 10 2 -11	-13 22 27 50 53 55 54 47 28 22 17	-5 28 32 55 57 50 54 45 31 25 18	53 49 52 45 29 26 19	73 53 70 74 72 85 86	79 84 66 56 60 54 23 41 39 44 65 77	% 86 87 69 50 50 43 22 37 40 43 77 82	In. 0. 037 . 026 . 122 . 154 . 365 . 406 . 436 . 356 . 157 . 119 . 097 . 226	. 037 . 154 . 195 . 452 . 484	. 041 . 152 . 162 . 381 . 407 . 362 . 411 . 335 . 169 . 142 . 108	In. 0. 52 . 88 . 68 1. 62 1. 09 1. 66 . 85 3. 08 . 33 . 35 1. 05 . 49	. 28 . 24 1. 46 . 49 . 53 . 64 1. 52 . 14 . 34 . 62 . 23	14.7 8.6 1.8 .0 .0 .0 .0 .0 .0 .0 .0 .8 9.8	5. 4 4. 9 6. 0 4. 4 4. 8 1. 7 4. 8 3. 1 3. 9 4. 3 5. 0	7. 2 5. 3 5. 0 3. 8 4. 8 2. 3 4. 2 3. 9 4. 6 6. 5	5. 8 5. 6 4. 2 3. 5 2. 8 3. 1 3. 5 3. 5	
											NAP																
January February March April May June July August September October November December	29, 20 29, 06 29, 07 29, 13 29, 16 29, 20 29, 24 29, 29	29. 54 29. 37 29. 52 29. 42 29. 50 29. 57 29. 69 29. 68	28. 81 28. 57 28. 75 28. 92 28. 84 28. 74 28. 81 28. 69	41. 7 60. 6 66. 1 75. 3 73. 5 64. 9 49. 7 34. 6 32. 8	42. 2 39. 8	23. 9 25. 7 47. 2 52. 0 71. 3 78. 6 88. 5 85. 9 73. 8 57. 9 40. 9 38. 2	29. 5 31. 2 54. 1 56. 6 76. 8 84. 1 93. 7 91. 0 80. 1 64. 8 47. 4 43. 5	15. 0 12. 3 34. 5 38. 8 55. 7 59. 9 71. 8 70. 0 61. 7 47. 1 31. 5 28. 1	22. 2 21. 8 44. 3 47. 7 66. 2 72. 0 82. 8 80. 5 70. 9 56. 0 39. 4 35. 8	57 61 73 78 90 98 106 101 95 80 69 61	-18 -11 17 23 41 52 56 58 44 26 18 9	15 13 31 33 48 50 61 61 56 44 28 27	48 50 59 60 56 44	48 52 58 59 57 45 28 27	77 78	51 50 45 39 39 44 54 57 55 61	67 56 54 47 42 37 41 58 64 60 65	. 099 . 181 . 200 . 351 . 381 . 554 . 551 . 476 . 308 . 166 . 158	. 109 . 184 . 192 . 362 . 376 . 519 . 525 . 469 . 310 . 160 . 162	0. 103 . 110 . 183 . 219 . 353 . 399 . 500 . 510 . 479 . 327 . 169 . 160	1. 32 3. 21 2. 13 3. 89 1. 48 2. 91 . 67 2. 49 4. 30 3. 29 4. 58 3. 20 33. 47	0. 33 1. 15 . 54 1. 39 . 56 2. 57 . 29 1. 17 1. 42 1. 03 4. 35 1. 94 4. 35	7. 1 7. 5 2. 8 .6 .0 .0 .0 .0 .0 T 3. 8		6. 3 5. 9 5. 5 6. 5 4. 1 4. 4 3. 7 4. 1 5. 5 5. 2 6. 6	6. 9 5. 5 5. 9 5. 1 4. 1 4. 6 4. 9 3. 8 4. 7 4. 1 4. 3 5. 3	7. 6 6. 9 6. 1 6. 4 4. 1 4. 5 5. 2 4. 4 5. 6 5. 5 6. 3 5. 7
									$[\phi = 4]$		IACA 'N.;				7.]												
September 2 October 2	29, 14   2   2   8, 97   2   9, 09   2   9, 13   2   9, 02   2   2   9, 11   2   9, 15   2   9, 11   2   9, 15   2   9, 29   2   2	29. 59 2 29. 44 2 39. 54 2 39. 70 2 59. 37 2 59. 44 2 59. 48 2 59. 48 2 59. 60 2 59. 71 2 59. 73 2	18. 36 18. 28 18. 47 18. 68 18. 62 18. 77 18. 80 18. 75 18. 38 18. 47 18. 34	15. 9 35. 2 40. 6 58. 2 64. 4 70. 6 66. 5 59. 4 48. 2 33. 3 30. 2	24. 3 42. 3 47. 4 68. 8 73. 1 81. 9 79. 5 70. 7 56. 5 38. 1	19. 6 38. 8 42. 8 61. 6 68. 2 74. 2 71. 1 63. 7 50. 8 35. 4 33. 4	51. 5 72. 9 77. 8 85. 7 83. 8 74. 9 60. 6 42. 5 40. 5	29. 9 33. 9 46. 8 54. 4 57. 2 58. 5 51. 5 41. 7 26. 7 24. 3	66. 1 71. 4 71. 2 63. 2 51. 2 34. 6 32. 4	41 55 65 81 89 88 103 97 89 78 69 59	42 43 43 31 23 3 -5	10 28 32 46 52 57 58 52 42 27 24	12 30 33 47 53 54 58 53 42 27 26	13 31 35 47 53 55 58 53 41 27 26	77 76 71 66 63 74 77 78 77	58 64 59 47 51 41 49 56 59 64	72 74 61 60 53 65 69 68 72 74	. 192 . 338 . 406 . 477 . 488 . 409 . 283 . 157 . 135	. 083 . 178 . 200 . 346 . 421 . 437 . 491 . 430 . 288 . 160 . 145	. 083 . 180 . 213 . 342 . 416 . 445 . 494 . 421 . 272 . 164	2. 74 3. 05 1. 54 2. 11 2. 71 1. 66 3. 41 2. 78 2. 18	0. 64 . 47 1. 98 . 74 1. 25 . 69 . 92 . 82 . 53 1. 42 1. 67 . 81	7. 1 10. 5 T T . 0 . 0 . 0 . 0 T 10. 0 7. 1	8. 1 5. 3 5. 2 4. 2 6. 1 5. 5 6. 9 8. 5 8. 2	7. 9 6. 2 8. 0 8. 2 5. 1 6. 2 5. 6 6. 0 6. 1 7. 6 8. 2 6. 8	4. 9 7. 0 8. 4 5. 3 5. 5 6. 1 4. 5 5. 2 7. 2 6. 5	8. 3 6. 3 7. 9 8. 1 5. 1 5. 5 5. 3 5. 9 5. 7 6. 0 7. 8 8. 0
				-							NVI					!		1				1	1				
February 30 March 22 April 30 May 29 June 29 July 29	0. 05   36 9. 92   36 0. 04   36 0. 04   36 9. 99   36 9. 90   36 9. 97   36 9. 97   36 9. 99   36 9. 90   36 9. 91   36 9. 91	0. 18 29 0. 13 29 0. 24 29 0. 41 29 0. 44 29	9. 46 9. 47 9. 67 9. 65 77. 74 19. 77 19. 81 19. 81 19. 81 19. 81 19. 81 19. 81	147. 8   657. 8   6633. 4   772. 5   876. 4   878. 5   878. 9   87	58. 4 69. 5 69. 5 60. 5 33. 8 37. 1 88. 5 37. 2 83. 1 78. 0 75. 9 61. 5	53. 4 65. 2 69. 3 74. 2 78. 6 81. 1 80. 4 779. 4 773. 0 631. 7 57. 1	62. 8 73. 8 78. 4 82. 6 82. 6 87. 1 90. 8 90. 1 87. 9 88. 3 69. 3 65. 1	44. 6 55. 6 59. 4 666. 7 71. 0 74. 1 72. 8 66. 0 52. 0 49. 3	[\$\phi = 3\) 54. 9 53. 7 64. 7 68. 9 74. 6 79. 0 82. 4 82. 1 80. 4 73. 2 30. 6 57. 2	80 77 87 89 92 96 97 95 93 88 86 79	24 25 43 40 60 65 69 71 70 53 30	45 44 52 55 65 69 72 74 71 65 48	45 45 49 51 61 67 69 70 69 65 49	46 45 50 55 64 69 71 73 72 87 87	86 88 82 76 78 81 85 86 88 80	64 52 48 54 55 58 56 58 56 66 86 86 86 86 86 86 86 86 86 86 86 86	74 63 .63 .72 .74 .72 .78 .77 .78 .77	411 466 623 720 785 833 768 643 379	. 321 . 384 . 406 . 550 . 656 . 709 . 744 . 714 . 636 . 393	. 306 . 404 . 450 . 606 . 708 . 749 . 807 . 774 . 682 . 421	5. 11 2. 93 1. 77 2. 38 6. 15 5. 88 5. 99 1. 61 2. 62 . 79	0. 67 1. 41 1. 59 1. 18 . 75 2. 43 2. 31 1. 31 . 49 5. 23 . 37 1. 11	0.0	6. 3 5. 7 3. 5 4. 2 3. 4 4. 7 2. 4 4. 8 5. 2 4. 8	5. 5 4. 2 6. 0 4. 4 6. 0 4. 4 6. 0 5. 9 5. 5	4. 4 4. 8 3. 1 4. 4 7 5. 5 3. 8 3. 8 4. 0 3. 9	6. 0 5. 9 5. 3 3. 7 5. 7 4. 3 5. 6 4. 5 7. 3

Table 16.—Annual meteorological summaries for the year ended Dec. 31, 1936—Continued HURON, S. DAK.
[H=1,282 ft.: H<sub>5</sub>=1.301 ft.: h<sub>7</sub>=59 ft.: h

		$[H=1,282 \; \mathrm{ft.}; \; H_b=1,301 \; \mathrm{ft.}; \; h_t=1,301 \; \mathrm{ft.}; \;$														53 ft	.; ha	=74	ft.]										
		Wind  By self-register Number of winds, 8 a. m. and 8																		N	luml	ber (	of da	ys					
		Bys	elf-re	gister		Nu	mbe	r of v	vinds	s, 8 a	. m.	and a	3 p.	m.				Pre itat	eip- ion	Sn	iow		F	og	Ma mu ten	m	ure 32°	El trie	
Month	Average hourly ve-	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	T or more	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperature or below	Thunderstorm	Aurora
January February March April May June July August September October November December	10.9	NW. NW. NW. SE. SE. SE. SE. SE.	Mi. 28 27 36 33 29 32 33 39 31 31 37 25 39	NW NW NW NW NE. SE. SE. SE. NW W.	0 0 3 2 0 1 1 1 0 0 0	6 7 7 10 7 10 6 12 8 5 95		2 0 2 10 11 9 1 2 1 5	18	2 1 2 4 8 10 9 8 7 9 8 7	2 1 3 5 6 1 3 2 1 4 6 2	7 3 2 6 5 16 9	22 18 16 10 6 4 5 14 6 16	0 0 0 0 0 0 0 0 0 0 0 0 1 0	9 8 11 13 18 15 25 14 18 15 17 10	7 8 12 10 10 12 6 14 10 13 4 10	15 13 8 7 3 0 3 2 3 9 11	11 8 8 9 5 10	4 8 6 4 6 6 3 7 4 1 3 4	20 11 6 0 0 0 0 0 2 8 13	11 13 8 5 0 0 0 0 0 1 5 4	0 0 0 0 0 0 0 0	12 3 1 5 3 0 3 6 2 0	1 0 0 0 0 0 0 0 0 0 0 1	29 28 7 3 0 0 0 0 2 5 16	0 0 0 0 2 9 27 14 4 0 0 0	29 28 15 0 0 0 0 0 16 27 30	5 8 7 14 4 1 1 0	0 1 1 2 0 2 0 0 3 2 1 0
	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$																ha=	230 f	t.]										
January February March April May June July August September October November December Year Year Mary May Year Mary Mary Mary Mary Mary Mary Mary Ma	12. 2 12. 5 11. 8 10. 0 10. 8 9. 1 9. 4 10. 1 9. 9 11. 9	W. W. W. S. NE. SW. S. S. S.	39 36 39 37 29 29 33 33 25 28 31 33	W. W. W. W. NW. S. W. S. N. NW. S. W.	2 2 5 5 2 0 0 1 1 1 0 0 0 1 1 1 1 4	4 1 6 6 8 6 6 6 6 6 4 3 2 58	6 11 7 6 3 18 8 6 12 10 7 3	5 5 7 10 7 8 13 12 8 6 1 9	8 6 3 11 4 4 3 3 7 3 5 8	9 10 15 4 16 4 9 11 16 22 10 20	5 4 5 7 8 9 13 16 6 6 9 5 93	6 6 6 7 4 3	4 5 9 10 10 5 3 4 1 1 8 13 8	0 0 0 0 0 0 0 0 0 1 0	9 7 18 13 10 13 11 13 10 9	10 8 12 10 7 11 17 14 8 4 8 7	18 16 10 13 6 6 4 4 11 14 12 15	8 12 16 6 8 7 10 10 12 4 11	7 8 10 4 5 4 7 6 10 3 8	18 6 5 0 0 0 0 0 0 5 6	2	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5 2 3 1 0 1 2 0 8 4	1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	13 15 0 1 0 0 0 0 0 0 0 2 3	0	26 12 9 0 0 0 0 0 3 18 20	5 2 6 7 14 10 7 2 1	0 0 0 0 0 0 0 0 0 0
							[H=	872	t.; H	[b=8		IAC.; h <sub>t</sub> =				ft.; h	a=10	00 ft.	ļ										
January February March April May June July August September October November December Year	9.8 9.9 10.4 8.3 8.4 7.0 6.9 8.8 9.9 11.4 11.2	W. W. NW. NW. NW. NW. S. NW. S. NW.	35 31 32 31 25 28 21 27 27 31 31 37	SE. SE. SE. NW. SE. NW. SE. SE.	2 0 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 6 9 9 7 7 8 3 9 5 6 3	1 3 3 0 1 1 4 6 6 10 3 2 4 4 38	3 5 2 3 3 6 2 4 2 4	12 14 17 14 9 12 6 14 12 11 7 16	9 4 7 10 11 11 4 7 11 18 12 10	6 2 2 2 3 3 7 6 5 4 9 5	15 14 6 7 5 3 0 2 1 1 2 2 2	9 14 14 23 17 24 18 8 16 20 18	0 1 2 1 0 2 6 0 2 0 0 0	4 6 3 2 10 9 7 6 11 10 3 3 3	4 10 6 6 14 12 18 15 5 6 7 5	23 13 22 22 7 9 6 10 14 15 20 23	7	8 16 16 9 7 7 10 7 10 8 8	19 11 6 2 0 0 0 0 4 14 14	16 9 9 1 0 0 0 0 1 10 3	0 0 0 1 0 0 0 0 0 0	10 6 3	1 1 7 0 0 1 0 1 0 3 0 1 1	13 18 2 0 0 0 0 0 0 0 0 6 5	0 0 0 0 0 0 7 9 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	27 21 14 1 0 0 0 1 5 20 22	0 0 1 3 7 3 4 7 3 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
							[H	[=18	ft.; I			ONV ; h <sub>t</sub> =					$n_a = 1$	10 ft.	.]										
January February March April May June July September October November December	7. 8 8. 7 9. 0 9. 1 8. 2 7. 4 8. 1 6. 8 7. 0 7. 9 8. 0 8. 5	S. NE. W. NE. S. S. E. E. N. NE.	35 35 30 28 24 26 24 24 20 23 22 21 35	S. SW. W. NE. E. SW. E. NW. NE.	1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	6 14 2 6 4 3 4 2 6 18 12 19	9 10 8 10 19 11 1 7 10 14 9 17	5 3 8 5 17 6 5 16 18 7 9 4	5 8 7 6 11 17 11 13 9 6 3 8	11 9 8 9 3 7 7 12 5 0 2	8 2 9 8 4 7 20 5 5 1 6 2 77	4 1 16 6 1 6 8 1 4 3 10 8	13 11 3 10 3 1 6 5 3 8 10 1	1 0 1 0 0 0 2 0 1 0 0 0 1 1 7	9 10 9 18 8 13 10 14 7 8 9 6	7 5 13 4 13 11 11 12 15 9 8 7	15 14 9 8 10 6 10 5 8 14 13 18	11 13 10 5 9 14 11 13 12 15 6 10	7 4 8 11 9 12 7 14 2 7	1 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8 6 3 2 2 0 1 3 0 6 6 8	4 2 0 0 0 0 0 2 0 3 1 1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 1 7 20 18 7 0 0 0	2 0	1 5 2 1 3 13 18 10 9 7 0 0 69	0 0 0 0 0 0 0 0 0 0

## UNITED STATES METEOROLOGICAL YEARBOOK

Table 16.—Annual meteorological summaries for the year ended Dec. 31, 1936—Continued Kalispell, Mont.

 $[\phi = 48^{\circ}10' \text{ N.; } \lambda = 114^{\circ}25' \text{ W.]}$ Pressure Temperature Moisture Extremes Relative humidity Mean Extremes Vapor pressure Precipitation Cloudiness Month Noon, local time Noon, local time Monthly mean Noon, local time Noon, local time Noon, local time in Maximum Maximum Minimum Minimum Monthly 8 a. m. m. 8 p. m. 8 a. m. 8 a. m. 8 a. m. m. Ħ. 8 p. m. m. Total Total s 8 p. 
 %
 In.
 In. 
 In.
 In.

 0.46 20.3
 6.1

 .42 30.7
 5.4

 1.00 17.9
 5.7

 .82
 0.4.7

 .29
 0.4.3

 .44
 0.5.5

 .38
 0.1.6

 .28
 0.3.0

 .66
 0.4.3

 .52
 5.0

 .52
 5.0

 .52
 5.0

 .52
 5.3

 .49
 13.7

 .52
 5.3

 .52
 5.3

 .52
 5.3

 .52
 5.3

 .52
 5.3

 .52
 5.3

 .52
 5.3

 .52
 5.3

 .52
 5.3

 .52
 5.3

 .52
 5.3

 .52
 5.3

 .52
 5.3

 .52
 5.3

 .63
 5.2

 .64
 5.2

 .65
 6.1

 .66
 6.2

 .66
 6.3

 .7
 5.3

 .8
 5.2

 .9
 6.2

 .9
 6.2

 .9
 6.2

 .9
 6.2

 .9
 6.2

 < % % 88 81 81 75 79 63 75 50 72 41 76 45 65 29 69 30 47 88 56 90 83 89 81 8.0 7.4 6.9 7.3 7.3 6.8 5.6 5.3 4.6 5.2 5.1 5.4 2.7 2.6 4.0 4.5 5.9 5.3 9.4 8.5 46 48 57 85 95 93 98 91 85 72 50 52 Year..... 26.94 27.51 26.30 35.0 49.5 50.9 54.4 31.9 43.1 98 -28 29 32 31 79 57 56 . 183 . 198 . 196 14. 05 1. 00 94. 8 4. 8 5. 6 5. 6 5. 6 KANSAS CITY, MO.1

 $[\phi = 39^{\circ}05' \text{ N.}; \lambda = 94^{\circ}37' \text{ W.}]$ 

#### KEOKUK, IOWA

 $[\phi = 40^{\circ}22' \text{ N.; } \lambda = 91^{\circ}26' \text{ W.]}$ 

March. 29, 24, 29, 67, 28, 28, 82, 10, March. 29, 24, 29, 67, 28, 74, 35, April. 29, 39, 29, 74, 29, 00, 42, June. 29, 28, 29, 62, 28, 64, 66, July. 29, 27, 29, 74, 29, 02, 79, August. 29, 29, 62, 29, 04, 75, September. 29, 33, 29, 76, 28, 93, 65, October. 29, 40, 29, 82, 89, 89, 80, 80, 80, 80, 80, 80, 80, 80, 80, 80	48. 2 48. 0 54. 6 33. 0 43. 8 78 54. 4 54. 5 59. 6 39. 6 49. 6 87 73. 9 73. 6 78. 8 58. 6 68. 7 90 80. 5 81. 6 86. 3 61. 7 74. 0 104 94. 0 94. 5 99. 0 75. 0 87. 0 113 89. 2 94. 9 71. 8 83. 4 106 76. 2 74. 1 80. 9 62. 4 71. 6 100 60. 9 57. 5 64. 6 47. 3 56. 0 83	11 27 27 28 11 93 47 151 1.151 1.151 32 32 32 65 46 46 199 208 20 46 52 52 53 70 49 51 404 407 41 50 56 56 56 52 30 29 531 467 46 60 61 59 60 64 38 39 559 508 52 48 58 58 88 80 56 61 511 507 508 52 94 34 44 57 78 55 64 297 313 32 313 32 32 57 72 8 74 50 58 146 159 17	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
November 29, 50 29, 97 28, 90 32, 8 29, 49 29, 85 28, 66 31, 3	43 01 41 7 49 6 90 0 90 0 = 1		0 84 57 5 3 6 3 9 2 6 4 0
Year 29. 37 29. 97 28. 64 47. 2	58. 1 57. 3 63. 4 43. 6 53. 5 113 -	18 38 37 38 71 49 54 .294 .286 .29	

KEY WEST, FLA.

 $[\phi = 24^{\circ}33' \text{ N.}; \lambda = 81^{\circ}48' \text{ W.}]$ 

<sup>1</sup> Observations taken at airport.

	1	KALISPEL [H=2,956 ft.; H <sub>b</sub> =2,973 ft.; h														=40 ft	.; h <sub>a</sub>	=56	ft.]										
	_									1	Num	ber	of da	ıys															
		Ву	self-re	egister		Nı	ımbe	er of	wind	s, 8 a	a. m.	and	8 p.	m.				Pre	cip- ion	Sı	ow		F	og	mı	axi- im np.	ure 32°	tri	lec- icity
Month	Average hourly ve-	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	T or more	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperatu	Thunderstorm	Aurora
January February March April May June Jule August September October November December Year Year Personal May Year March May May Movember December Movember Mear Mear March Mar	Mi. 5.0 6.2 7.1 6.8 7.3 6.9 6.4 6.4 5.8 4.3 5.6 6.2	NW. SW. W. W. W. W. W. NW. NW.	Mi. 21 31 27 22 26 25 21 19 24 21 18 31 31	W. SW. SW. W. S. W. NW. NE. N.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			1 4 5 5 6 8 8 5 6 7 4 2 61	8	1 4 3 3 3 3 0 3 1 3 2 5 5 5	10 6 18 16 9 4 5 3 3 5 2 3	177 144 133 100 222 166 220 166 177 211	18 12 11 9 12 18 13 13 16 16	4 0 0 0 0 0 1 0 0 0 2 1 5 3	3 7 2 9 9 7 20 16 12 15 11 0	9 4 18 9 13 16 10 14 9 8 3 5	19 18 11 12 9 7 1 1 9 8 16 26	16 12 9	12 13 6 5 3 9 2 2 3 4 3 11	21 18 16 0 0 0 0 0 0 2 5 17	13 15 8 0 0 0 0 0 0 1 4 12	0 0 0 1 0 0 0 0 0 0 0 0 0	3 0 1 0 0 0 0 0 0 0 0 0 13 3	1 0 0	15 23 4 2 0 0 0 0 0 0 19 13	0 0 0 0 3 3 14 2 0 0 0	27 26 6 0 0 0 0 4 16 30 26	0 2 6 10 7 3 2 1, 0	
							[H	=741	ft., ]		NS A						ha=4	15 ft.]											
November December	12. 3 11. 5 9. 2 10. 2 9. 2 9. 1 9. 0 10. 2 11. 0 10. 1	NW. NE. SW. SW. SW. SW. SW. SW. SW.	32 34 38 34 34 34 56 34 31 35 36 36	N. SW. SW. SW. SW. NW. NW. NW. N.	1 2 7 3 1 2 2 2 0 3 3 1 1 2 2 7	9 10 6 16 10 9 8 5 8 13 10 9	10 13 12 8 9 15 10 6 11 6 3 10	7 10 5 4 2 6 8 13 13 1 7 5	4 2 4 5 6 4 0 5 4 4 1 6 4 5	3 4 7 11 12 7 6 12 13 13 13 5 7	10 5 12 9 13 15 23 16 4 18 17 19	5 6 7 1 3 2 2 2 1 2 3 4 3 3 9	14 8 9 5 7 2 5 3 4 4 13 3	0 0 0 1 0 0 0 1 1 0 0 0	7 8 10 13 8 19 26 18 7 14 19 8	10 9 14 9 14 9 5 8 10 6 7 8	14 12 7 8 9 2 0 5 13 11 4 15	10 8 2 12 10 3 2 4 16 8 2 7	6 5 1 10 10 1 1 2 14 6 1 4 61	17 11 3 0 0 0 0 0 0 0 0 1 5	9 8 0 3 0 0 0 0 0 0 4 24	0 0 0 1 2 0 0 0 0 0 0 0 0	8 3 0 3 4 0 2 1 5 5 4 10 45	1 0 0 0 3 0 0 1 1 4 3 2	15 18 0 1 0 0 0 0 0 0 0 1 35	0 0 0 1 1 17 29 27 13 0 0 0	29 25 10 6 0 0 0 0 1 1 20 20	0 1 1 5 6 3 3 6 10 4 0 1	
							[H=	= 574 1	ft.; B		ΚΕΟ 14 ft.					ft.; l	h <sub>a</sub> =7	8 ft.]											
March	8. 7 7. 5 7. 7 7. 0 7. 0 7. 4 7. 8 8. 8 8. 2	NW. W. N. NW. S. NE. SW. SW. SW. SW.	27 21 28 21 21 21 23 24 27	NW. W. NW. NW. SW. NE. N. S. W. W.	0 0 1 0 0 0 0 0 0 0 0	11 12 11 12 5 14 4 3 5 7 4 4 4 92	4 9 4 8 8 9 15 9 12 8 2 5	8 6 6 3 5 8 6 6 10 0 4 6	4 5 7 11 12 5 7 16 7 3 4 8 8	2 3 6 5 14 8 5 4 12 11 5 10	9 2 8 8 7 8 19 17 7 17 14 14 14	11 14 9 4 6 6 4 1 1 5 9	12 7 10 9 4 1 1 3 2 7 16 11 83	1 0 1 0 1 1 1 1 3 4 4 2 2	11 8 11 12 10 13 21 14 8 8 15 11	8 7 8 8 11 8 7 11 8 11 7 6	12 14 12 10 10 9 3 6 14 12 8 14	16 12 4 12 5 8 1 6 13 7	11 7 4 10 5 6 0 2 11 6 3 4	18 13 1 4 0 0 0 0 0 0 0 0 3 2	15 8 1 4 0 0 0 0 0 0 0 1 1 1	0 0 1 0 0 0 0 0 0 0 0 0	2 1 0 2 2 2 0 0 2 2 2 1 2 2 1 2 2 1 1 1 1	0 0 0 0 0 1 0 0 0 1 1 0 4	18 19 0 1 0 0 0 0 0 0 1 4 43	0 0 0 0 1 12 23 22 8 0 0 0	29 26 13 8 0 0 0 0 0 3 21 24	0 2 1 1 5 6 5 9 7 4 1 1 1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
							[H	=5 f	t.; H		EY :					.; ha	=64	ft.]											
Aarch 1 pril 1 Aay 1 une 1 uly 1 uusust 1 eptember 1 ovember 1 ovember 1	0. 8 0. 9 0. 4 0. 0 9. 2 9. 8 8. 5 7. 2 8. 0 0. 5 9. 7	NE. SE. SE. EE. NE. NE. NE.	32 37 22 29 32 38 26 24 24 21 24	W. NW. NW. NW. NW. SE. SE. SE. N. NW. NW. NW.	0 1 1 0 0 0 1 2 0 0 0 0 0	9 11 7 13 6 4 3 4 10 11 9 7	15 12 4 11 14 3 12 2 16 35 21	18 8 19 20 27 14 27 31 38 21 10 19	11 12 13 9 3 16 15 11 4 8 0 6	5 11 4 2 3 13 7 2 4 1 1 1 3	3 2 4 1 2 4 4 0 1 0 1 0	0 0 2 1 5 3 2 1 1 2 2 3 3 2 2 1	1 2 9 3 2 1 1 0 3 2 3	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20 9 15 19 11 4 11 12 9 15 12 15	7 11 12 6 11 16 13 11 12 12 13 9	4 9 4 5 9 10 7 8 9 4 5 7	19 11 22 13	3 9 4 2 11 15 10 16 7 10 6 6	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 1 0 0 0 0 0 0 0 0	1 1 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 2 6 2 5 1 0 0	0	2 5 3 1 4 12 8 16 14 8 2 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

22

22 29

38 NW

94 149 252 108

<sup>1</sup> Observations taken at airport,

 $[\phi = 35^{\circ}58' \text{N.}; \lambda = 83^{\circ}55' \text{W.}]$ 

					= 35°.	58'N.;	λ=	83°	55′ \	N.																	
	]	Pressu	ire				Temp	eratur	е										]	Moist	ure						
		Ext	remes			M	ean			Ext	remes		Dev			elati mid		Vap	or pre	ssure	Pre	cipita	tion		Clou	dine	ss
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
January February March April May June July August September October November December	28. 86 29. 01 29. 02 28. 88 28. 94 29. 01 29. 05 29. 10 29. 13	29. 16 29. 37 29. 40 29. 15 29. 18 29. 22 29. 22 29. 32 29. 42 29. 52	28. 42 28. 51 28. 70 28. 64 28. 73 28. 81 28. 78 28. 65 28. 74	44. 5 50. 8 65. 0 73. 6 75. 2 73. 3 68. 7 55. 0 40. 1 39. 3	57. 9 62. 3 79. 3 87. 7 85. 5 86. 0 82. 3 68. 3 52. 5 48. 9	41. 7 56. 2 59. 8 77. 1 84. 5 82. 3 81. 9 77. 8 63. 3 48. 7 47. 2	46. 7 63. 4 68. 1 84. 4 92. 4 89. 9 90. 7 86. 7 71. 7 56. 7	28. 8 42. 0 46. 4 59. 5 67. 0 71, 0 69. 7 65. 5 52. 2 37. 2 36. 7	34. 8 37. 8 52. 7 57. 2 72. 0 79. 7 80. 4 80. 2 76. 1 62. 0 44. 9 60. 4	64 73 78 87 94 101 101 99 93 83 81 68	2 10 29 28 49 51 61 57 53 39 20 23		41 40 49 55 67 67 63 52 37	30 35 41 40 50 56 68 65 53 37 38	- 1	% 69 74 57 47 37 34 56 55 53 59 56 64 55	% 76 76 60 52 41 40 63 64 65 71 64 71 62	In. 0.170 .173 .256 .277 .419 .506 .692 .668 .589 .396 .217 .208 .381	In 0. 179 . 204 . 274 . 267 . 362 . 446 . 678 . 669 . 583 . 414 . 235 . 228 . 378	In. 0. 183 . 217 . 274 . 266 . 377 . 458 . 687 . 694 . 622 . 426 . 233 . 238 . 390	4. 36 7. 96 4. 76 1. 39 7. 94 1. 97 2. 13 2. 06 1. 20	2. 04 2. 50 2. 11 .32 .70 5. 37 .90 .71 .74 .69 2. 50	14. 4 2. 6 T . 0 . 0 . 0 . 0	5. 9 2. 5 1. 2 4. 3 4. 0 3. 5 4. 7 5. 2	5. 4 5. 3 4. 5 2. 2 2. 2 5. 1 3. 6 3. 1 4. 5 4. 9 6. 5	5. 2 3. 9 4. 9 3. 1 3. 4 5. 8 4. 0 3. 1 4. 2 3. 8 5. 8	5. 1 2. 6 2. 5 5. 1 3. 6 3. 7 4. 9 4. 9 6. 6
											ROS O' N.;				V.]												
February 2 March 2 April 2 May 2 June 2 July 2 August 2 September 2 October 2 November 2 December 2	29. 30 29. 07 29. 26 29. 22 29. 17 29. 16 29. 18 29. 22 29. 25 29. 32	29. 60 29. 57 29. 65 29. 48 29. 68 29. 82	28, 56 28, 53 28, 88 28, 68 28, 50 28, 91 28, 86 28, 92 28, 79 28, 67 28, 30	5. 9 6 29. 2 37. 3 59. 5 60. 6 70. 4 65. 7 58. 3 41. 4 27. 9 23. 3 39. 9	12. 8 8. 9 36. 9 46. 7 72. 0 74. 3 88. 9 82. 7 72. 2 54. 2 37. 8 29. 5 51. 4	11. 6 6. 9 35. 4 46. 2 70. 1 72. 3 85. 8 79. 4 67. 2 48. 7 34. 5 27. 8	17. 5 14. 2 42. 7 51. 5 75. 5 78. 0 92. 6 86. 4 75. 0 57. 1 41. 2 34. 7 55. 5	1.7 -5.6 26.3 33.9 55.3 56.3 66.4 63.2 55.4 37.8 24.2 17.7 36.0	9. 6 4. 3 34. 5 42. 7 65. 4 67. 2 79. 5 74. 8 65. 2 47. 4 32. 7 26. 2 45. 8	37 42 69 75 90 108 100 91 76 62 55	-28 -23 4 13 39 45 49 51 41 20 12 -12 -28	4 -3 24 30 51 52 60 58 55 37 23 19	7 3 25 30 50 53 61 60 58 39 26 23 36	60 58 40 26 22	75 76 75 72 78 90 85 82 84	62 54 48 50 41 48 62 58 62 75	81 70 58 52 54 42 55 72 71 70	0. 067 0. 047 . 136 . 175 . 393 . 397 . 538 . 497 . 456 . 236 . 129 . 121 . 266	.055 .144 .178 .384 .421 .544		0. 90 2. 02 2. 45 2. 55 3. 16 2. 06 1. 61 4. 08 5. 35 2. 77 . 86 1. 47	0. 28 .63 .84 1. 68 1. 35 .48 .71 2. 21 2. 53 1. 27 .56 .67 2. 53	27. 1 9. 4 5. 5 .0 .0 .0 .0 .0 .0 .0 .0	6. 3 5. 4 5. 9	6. 4 6. 8 6. 3 6. 4 5. 5 4. 7 3. 0 4. 3 4. 8 5. 1 6. 0 7. 1 5. 5	5. 9 7. 1 7. 1 5. 9 5. 5 5. 3 2. 9 5. 0 4. 3 6. 0 4. 9 7. 0 5. 6	6. 0 6. 4 6. 8 6. 6 5. 5 5. 5 3. 0 5. 2 4. 7 5. 6 6. 9
											DER N.; λ				7.]												
February 2 March 2 April 2 May 2 June 2 July 2	44. 41 2 4. 51 2 4. 64 2 4. 65 2 4. 65 2 4. 74 2 4. 74 2 4. 73 2 4. 73 2 4. 83 2 4. 56 2	24. 84 2 24. 88 2 24. 91 2 24. 92 2 24. 95 2 24. 97 2 25. 00 2 25. 00 2 25. 10 2 24. 86 2	23. 77 24. 07 24. 15 24. 24 24. 27 24. 46 24. 52 24. 30 24. 30 24. 30 24. 18	30. 3 46. 7 55. 9 61. 2 55. 2 44. 0 36. 0 23. 9 18. 5	52. 1 69. 0 75. 3 83. 2 77. 9 67. 4 51. 6 41. 1 32. 3	53. 0 70. 1 76. 5 82. 1 78. 2 68. 4 50. 7 35. 0 27. 4	26. 5 47. 5 58. 1 74. 1 80. 9 88. 1 83. 2 73. 1 57. 2 45. 2 37. 3	30. 9 42. 5 51. 5 58. 3 52. 5 40. 0 31. 3 18. 9 12. 2	67. 8 56. 6 44. 2 32. 0	65 77 89 95 98 96 88 77 63 50	-40 1 -11 32 41 51 41 23 11 -5 -14	0 16 25 30 41 47 44 31 28 19	7 17 27 28 42 44 42 28 30 23 17	9 16 26 28 39 45 44 28 31 22	83 69 72 55 61 62 67 62 74 80	70 40 41 23 33 29 31 27 48 52 652	76 40 42 23 31 32 34 26 52 60	. 089 . 146 . 172 . 264 . 325 . 294 . 178 . 153 . 100 . 076	. 062 . 093 . 150 . 156 . 275 . 302 . 277 . 160 . 162 . 127 . 093	. 071 . 089 . 147 . 158 . 248 . 314 3. 00 . 158	0. 26 . 57 1. 32 1. 39 . 83 1. 77 2. 28 1. 09 . 96 2. 75 . 35 . 32	. 89 . 42 . 35 . 84 1. 51 . 74 . 94 1. 20 . 21	7. 2 14. 3 3. 3 . 0 . 0 . 0 . 0 . 0 . 0 6. 4 4. 4 5. 0	3. 3 4. 1 5. 1 2. 2 3. 0 3. 4 2. 8 1. 8 3. 9 2. 4 3. 0	4. 0 4. 4 4. 2 4. 3 2. 7 4. 9 3. 3	4. 8 5. 5 9 4. 6 4. 8 5. 8 4. 3 3. 2 5. 0 3. 8 4. 8	4. 6 4. 9 5. 3 5. 5 4. 0 4. 2 4. 6 4. 1 2. 7 5. 1 3. 1 4. 2
		!							L	ANS	ING	, M	(IC)	H.				100	102			1.01	.0.0	0.1	2.0	1.0	4.4
January 29	9. 02 2	9. 58 2	8. 40				25. 7			41	-9	15	18	18	89 3	79 8	87 0.	. 092 0.	. 104 0	. 104	1. 78	0. 54 1	7. 2	9, 3	8. 7	8. 7	9. 2
February         28           March         28           April         29           May         29           June         29           July         29           August         28           September         29           November         29           Year         29	9. 06 2 9. 11 2 9. 01 2 9. 03 2 9. 07 2 9. 11 2 9. 10 2 9. 11 2 9. 11 2 9. 11 2	9. 52 2 9. 58 2 9. 39 2 9. 45 2 9. 52 2 9. 54 2 9. 72 2 9. 61 2	8. 52 8. 55 8. 42 6. 8. 76 6. 8. 82 6. 83 6. 84 8. 84	31. 2 36. 0 56. 3 60. 1 66. 2 64. 0 77. 0 79. 0	41. 4 46. 4 69. 9 72. 0 83. 0 79. 1 70. 2 55. 0 37. 7 34. 9	36. 9 43. 5 65. 0 69. 0 78. 8 75. 4 64. 8 49. 0 33. 6 31. 2	75, 7 85, 0 82, 4 72, 8 57, 4 40, 6 37, 0	27. 3 32. 7 48. 6 52. 6 59. 5 59. 5 53. 0 38. 8 26. 5	71. 0 62. 9 48. 1 33. 6 29. 8	46 69 74 88 85 101 94 86 73 64 58	-14 8 16 33 44 49 51 34 19 9	6 26 29 48 52 57 57 58 54 39 26	10 29 32 50 55 58 56 42 27 28	11   9 26   35 50   54   59 58   8 58   9 58   9 58	91   78   676   75   75   74   73   74   73   74   73   74   75   75   75   75   75   75   75	71 8 62 6 58 7 50 6 57 6 44 5 49 5 32 7 64 7 65 7 6 8	82 65 72 60 61 52  79  79  74 	. 069 . 143 . 174 . 357 . 392 . 482 . 489 . 443 . 259 . 150 . 139	. 076 . 167 . 197 . 374 . 445 . 505 . 471 . 472 . 295 . 160 . 164	. 077 . 146 . 222 . 384 . 434 . 522 . 488 . 504 . 295 . 154	1. 62 . 83 3. 37 . 78 2. 98 1. 22 2. 42 7. 76 2. 24 . 66 1. 99	. 42 1 . 19 1. 19 . 44 1. 63 . 96 . 82 1. 42 . 56 . 52	6. 9 5. 0 7. 8 . 0 . 0 . 0 . 0 . 5 . 7 5. 5	6. 4 6. 5 7. 3 4. 6 5. 0 11. 9 5. 3 4. 2 6. 0 7. 5	7. 3 7. 3 8. 1 5. 1 5. 2 3. 4 5. 2 7. 0 7. 2	6. 4 6. 3 7. 8 4. 9 4. 8 2. 5 4. 0 4. 5 5. 3 6. 5 6. 3	7.1 7.1 7.8 5.5 4.6 2.9 4.7 5.1 6.1 7.6 6.9

							(H	= 921	ft.;	H <sub>b</sub> =	995 ft	t.; ht	=66	ft.; l	$a_r = 5$	7 ft.;	ha=	84 ft.	.]										
							Wind	1												1	Vum	ber	of da	ys					
		Bys	self-re	gister		Nt	ımbe	er of	wind	s, 8 a	ı. m.	and	8 p.	m.				Pre	cip-	Sı	now		F	og	mı	axi- um np.	1re 32°		lec- city
Month	A verage hourly velocity	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	T or more	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperature or below	Thunderstorm	Aurora
January February March March April May June July August September October November December	Mi. 6.3 6.5 6.6 7.1 5.0 6.0 5.7 5.0 4.7 5.2 6.3 5.6 5.8	E. W. W. NE. SW. SW. E. NE. W.	Mi. 25 22 27 25 21 27 20 27 17 18 20 19 27	W. NW. W.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 6 3 5 4 2 1 2 4 5 4	10 12 7 9 13 14 7 5 12 11 9 19	12 14 19 10 11 10 9 18 17 15 9 19	5 1 3 1 5 2 4 3 4 3 1 2 3 4 3 1 2 3	3 3 2 3 3 4 5 3 4 2 1 2	111 8 11 6 4 15 14 11 6 8 12 6	21 13 6 16 15 7 8 18 5	6 1 4 1 3	2 0 0 3 7 2 2 4 7 4 1 1 2	12 11 7 10 19 22 10 19 18 13 12 8	6 5 12 11 10 7 12 8 7 7 8 7	13 12 9 2	13 15 13 10 5 5 10 11 6 11 8 13	12 11 8 4 5 8 7	8 8 3 2 0 0 0 0 0 4 1	4 6 1 0 0 0 0 0 0 0 0 1 1 1	0	16 14 12 10 4 3 11 14 16 21 11 17	8 2 4 0 0 0 0 0 0 0 2 4 3	8 2 0 0 0 0 0 0 0 0 0 0	0 0 0 0 5 23 17 20 9 0 0	16 4 4 0 0 0 0	5	0 0 0 0 0 0 0 0 0 0 0
							IH.	-674	f+ · 1			ROS				64 . l	na = 48	0.64.1	1		!			!		!			
January February March March April May June July August September October November December	5. 3 5. 7 6. 8 7. 0 5. 7 4. 9 4. 6 4. 6 6. 1 6. 8 6. 1 5. 7		18 18 23 24 24 22 15 16 15 21 21 21	NW. SW. SW. NW. NE. N. S. NW. NW. SW.		7 4 7 5	0 3 3 0 3 6 3 4 2 1 1	1 0 0 1 2 3 7 6 1 2 4 0	8 4 10 5 10 10 11 8 14 7 5 15	9 7 5 12 22 13 10 16 21 18 14 19	3 7 14 3 9 2 10 4 4 8 7 6	18 17 11 11 5 7 7 9 4 5 7 11	16 11 15 18 9 11 5 8 6 15 16 8	0 2 0 0 0 0 1 1 0 0	10 7 5 7 9 9 18 9 14 13 10 9	6 5 11 7 8 11 8 13 8 4 6 3	15 17 15 16 14 10 5 9 8 14 14 19	13 16 13 11 12 8 6 12 10 7 3 8	9 9 10 8 9 6 5 10 7 4 3 6	17 18 13 7 0 0 0 0 0 0 7 9	13 16 9 4 0 0 0 0 0 0 1 4 4 4 7	0 0 1 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0	20 15 15 10 9 4 15 22 17 8 23	0 0 0 0 1 2 0 3 6 5 4 1	24 24 6 5 0 0 0 0 0 0 5 11 75	0 0 0 0 1 2 16 12 1 0 0	29 28 22 11 0 0 0 0 0 8 25 27	0 0 2 1 9 4 10 9 6 2 0 0	0 0 0 0 0 0 2 2 0 0 0 0
						[H	I = 5,3	370 ft	.; H			DEI .; h <sub>t=</sub>				4 ft.;	ha=	68 ft.	.]										
January February March April May June July August September October October December Year	6. 8 5. 9 5. 8 5. 3 5. 5 4. 4 4. 0	SW. SW. SW. SW. SW. SW. SW. SW. SW. SW.	32 38 35 32 30 28 22 16 24	SW. SW. SW. SW. SW. SW. SW. SW. SW. SW.	2 3 5 1 2 1 1 0 0 0 0 0 0	4 8 3 1 5 4 4 4 5 0 6 5 4 9	7 6 7 9 4 5 2 3 8 5 8 8 72	8 15 3 3 9 2 2 2 2 3 6 2 4 59	5 1 5 3 1 2 5 5 2 5 3 4 41	2 7 10 1 4 9 5 4 4 5 6 8	17 7 12 19 22 16 21 16 17 23 15 21	7 10 13 19 13 15 12 18 13 9 13 7	5 1 6 2 2 5 3 7 2 8 3 4	7 3 3 3 2 2 8 3 6 1 4 1	11 8 7 5 12 13 10 14 19 12 19 15	15 18 19 20 18 11 17 14 9 8 7 14	5 3 5 5 5 1 6 4 3 2 11 4 2 51	4 6 5 8 4 7 8 6 3 7 4 2	2 3 4 7 4 6 6 6 6 2 7 3 2	8 12 8 4 0 0 0 0 2 5 5 5	4 6 5 4 0 0 0 0 2 5 4 2	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	11 17 6 4 0 0 0 0 0 2 5 6	0 0 0 0 0 9 18 7 0 0 0 0	31 29 29 10 0 0 0 6 16 30 31 182	0 0 0 0 0 3 4 8 11 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0
						[:	H=8	56 ft.	; H <sub>b</sub>			SINO h <sub>t</sub> =5				ha=	90 ft.	]											
February 1 March 1 April 1 May 1 June 1 July 1 August 1 September 1	10. 6 10. 8 10. 0 9. 0 7. 4 6. 6 7. 4 7. 0 8. 7 0. 6	SW. SW. W. NW. SW. N. N. W. E. SS. SW.	36 33 28 27 23 21 22 20 27 28	W. W. SW. NW. NW. W. N. W. SW.	0 2 1 0 0 0 0 0 0 0 0	5 5 8 2 4 8 11 8 4 7 4 5	3 2 0 5 2 14 11 7 6 1 5 4	5 7 5 8 4 5 8 5 12 2 1 3	7 6 12 5 5 6 5 7 8 4 3 11	8 4 8 7 12 5 7 8 14 20 6 10	15 16 8 6 14 6 6 8 7 14 17	10 6 6 8 4 5	3 6 9 20 10 8 8 10 4 9 17 8	0 0 2 1 1 2 0 1 1 0 0 0	0 7 6 3 8 9 17 12 9 8 5 6	2 5 7 8 15 13 13 11 12 11 6 8	29 17 18 19 8 8 8 1 18 9 12 19	16 12 16 8 7 4 11 14	10 8 12 6 5 3 9 14 11	27 20 10 9 0 0 0 0 1 13 11	14 15 7 6 0 0 0 0 0 1 4 5	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 2 1 2 1 1 0 1 3 7 2 6	0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 3	19 22 4 2 0 0 0 0 0 0 0 6 8	0 0 0 0 0 8 6 0 0 0 0	30 27 23 14 0 0 0 0 7 23 25	0 0 1 2 4 6 3 9 8 2 0 0	0 0 0 0 0 0 0 0 0 0 0

71 60 65 79 109 134 94 112

Year..... 9.0 SW.

## UNITED STATES METEOROLOGICAL YEARBOOK

Table 16.—Annual meteorological summary for the year ending Dec. 31, 1936—Continued Lincoln, Nebr.

_			
$[\phi = 40^{\circ}49']$	N .:	$\lambda = 96^{\circ}45'$	WI

									[φ=	=40°4	19' N.	; λ=	=96°	45′	W.J												
	F	ressu	re				Γemp	eratur	·e											Moist	ure						
		Extr	remes			М	ean			Ext	remes		Dev poir			elati mid		Vap	or pre	essure	Pre	cipita	tion		Clou	dine	SS
Month	Monthly mean	Maximum	Minimum	8a.m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
January_February March_April May_June_July_August_September_October_November_December_Year	28. 59 28. 76 28. 71 28. 65 28. 65 28. 66 28. 69 28. 77 28. 89 28. 80	29. 07 29. 13 29. 05 29. 00 29. 11 28. 92 29. 14 29. 32 29. 32 29. 32	27. 94 28. 29 28. 22 27. 89 28. 29 28. 38 28. 19 28. 23 28. 29 28. 16	34. 8 40. 3 60. 5 66. 6 77. 5 72. 3 62. 9 45. 7 31. 6 29. 0	12. 2 50. 5 56. 7 74. 6 82. 8 96. 7 92. 1 77. 8 60. 0 47. 4 36. 0	12. 2 48. 6 55. 8 73. 3 81. 8 96. 7 90. 2 74. 4 57. 4 42. 8 33. 9	56. 5 62. 2 78. 9 88. 0 101. 1 96. 9 82. 4 65. 3 52. 2	. 2 32. 1 36. 9 57. 5 61. 1 74. 7 69. 5 60. 7 41. 7 27. 5 23. 6	8. 8 44. 3 49. 6 68. 2 74. 6 87. 9 83. 2 71. 6 53. 5 39. 8 31. 8	6 47 53 75 89 90 108 115 110 101 85 75 62	-19 -20 18 9 42 46 59 57 44 23 11 0	28 52 53 56 58 56 37 24 24	5 26 29 52 53 52 56 54 39 25 26	11 6 26 30 54 53 50 55 54 39 25 27	% 85 80 71 64 74 64 49 63 81 73 71 81 71	74 70 40 40 49 39 24 32 48 46 44 67	% 80 75 44 43 52 40 22 35 54 52 50 74 52	In. 0. 070 . 051 . 144 . 174 . 394 . 416 . 454 . 489 . 480 . 236 . 131 . 138 . 265	In. 0. 081 . 062 . 149 . 181 . 405 . 420 . 399 . 472 . 449 . 252 . 135 . 152 . 263	. 149 . 186 . 420 . 424 . 373 . 456 . 447 . 258 . 133 . 151	. 68 . 18 2. 29 1. 95	. 22 . 18 1. 73 1. 33 . 54 . 04 . 74	9. 4 T 2. 2 0 .0 .0 .0 .0 T T 2. 6	5. 4 5. 1 4. 7 5. 2 3. 9 1. 1 4. 7 4. 3 3. 9 3. 1 5. 1	6. 2 4. 4 5. 3 6. 0 4. 7 3. 0 4. 9 4. 5 4. 4 3. 9 7. 0	6. 5 4. 1 5. 2 4. 5 2. 9	6. 2 4. 5 5. 2 5. 5 3. 9 2. 6 4. 3 4. 7 4. 1 3. 4 6. 2
											LE 1					]											
February March April April May June July August September October November December	29, 54   29, 67   29, 65   29, 58   29, 60   29, 70   329, 84   3	30. 15 29. 86 30. 04 29. 90 29. 75 29. 83 29. 78 29. 81 30. 04 30. 16	29. 08 29. 19 29. 05 29. 37 29. 20 29. 33 29. 33 29. 30 29. 44 29. 39 29. 25	31. 5 32. 2 50. 3 52. 2 66. 2 73. 2 76. 1 71. 3 54. 4 42. 4 41. 1 55. 6	39.1	41. 7 40. 8 63. 1 66. 2 77. 6 87. 4 87. 5 90. 5 83. 0 66. 0 52. 6 49. 5	46. 6 45. 1 67. 9 70. 9 81. 2 91. 8 91. 8 95. 3 89. 0 71. 8 59. 0 54. 2 72. 0	28. 6		71 76 80 87 86 105 104 110 98 85 82 68	10 5 37 30 53 62 65 65 65 27 24	25 39 40 58 62 70 68 67 50 35 36 48	26 26 39 40 56 61 70 67 51 34 37 48	68 66 51 35 36 48	76 69 83 77 87 86 74 83 76	50 44 58 46 57 58 49 64	59 45 44 52 46 60 49 59 60 54 63	0. 141 . 163 . 251 . 280 . 497 . 569 . 746 . 705 . 683 . 376 . 215 . 231	0. 148 . 165 . 256 . 284 . 469 . 555 . 746 . 675 . 684 . 385 . 214 . 237	0. 162 . 162 . 268 . 284 . 483 . 573 . 774 . 685 . 664 . 387 . 226 . 230	0. 93 1, 30 2. 35 3. 10 1. 24 3. 27 7. 51 . 27 1. 92 4. 42 3. 67 4. 90 34. 88	0. 42 . 55 1. 49 1. 58 . 46 2. 42 3. 63 . 27 . 63 1. 64 2. 17 2. 74 3. 63	1. 4 4. 1 .0 .0 .0 .0 .0 .0 .0 .0 .T T	5.4	5. 4 5. 2 4. 5 5. 0 5. 8 2. 8 5. 2 3. 2 6. 1 4. 8	4. 6 5. 3 4. 1 4. 7 4. 8 3. 2 4. 5 3. 4 4. 8 3. 5 5. 0 4. 3	5. 3 5. 6 4. 4 5. 3 5. 5 2. 7 4. 8 3. 0 5. 6 4. 8 4. 1 6. 4
											GEL N.; >																
February March April May June July August September October 2 November 2	29. 61 2 29. 66 2 29. 57 2 29. 52 2 29. 51 2 29. 50 2 29. 50 2 29. 58 2 29. 70 3	9. 92 9 9. 87 2 9. 87 2 9. 74 2 9. 70 2 9. 70 2 9. 64 2 9. 73 2 9. 65 2 9. 74 2 0. 03 2 9. 96 2	29. 41 29. 24 29. 54 29. 42 29. 31 29. 31 29. 41 29. 32 29. 32 29. 32	53. 4	61. 5 64. 4 65. 7 71. 6 75. 8 81. 2 80. 5 77. 5 74. 7 75. 6 64. 2	62. 0 64. 0 69. 1 73. 3 76. 4 77. 5 73. 1 69. 2 70. 9 61. 5	63. 6 67. 4 69. 2 73. 9 77. 9 83. 0 82. 7 79. 6 76. 4 78. 4 67. 1	60. 0 65. 2 64. 1 61. 4 58. 5 57. 1 50. 2	59. 4 56. 5 59. 0 60. 6 65. 6 69. 0 74. 1 73. 4 70. 5 67. 4 67. 8 58. 6 65. 2	79 83 85 90 83 90 97 93 88 96 90 79	42 46 53 53 61 60 58 55 49 39	61 56 51 34 36	44 48 51 57 60 61 56 48 33 37	46 46 49 52 56 60 60 58 52 38 42	80 80 85 78 86 84 88 82 75 42	57 52 56 50 53 52 49 47 26 44	65 59 61 56 56 59 56 59 60 34	. 345 . 383 . 468 . 536 . 539 . 458 . 383 . 207 . 236	. 299 . 304 . 341 . 383 . 471 . 522 . 532 . 457 . 362 . 203 . 243	. 318 . 321 . 353 . 386 . 462 . 525 . 527 . 478 . 407 . 243	7. 25 1. 34 . 95 . 00 . 20 . 01 . 02 . 03 1. 25 . 05 6. 63	0, 28 1, 50 1, 05 82 .00 .10 .01 .02 .03 .38 .05 1, 96	.0	5. 8 4. 9 5. 2 5. 5 6. 1 4. 1 4. 5 2. 1 3. 6	4. 4 4. 1 2. 2 1. 3 2. 7 1. 2 1. 2 3. 4 2. 1 4. 6	5. 6 3. 0 2. 6 1. 1 1. 3 1. 9 1. 0 2. 3 3. 0 2. 3	4. 8 5. 8 4. 3 4. 7 3. 0 2. 6 3. 6 2. 7 2. 2 3. 5 2. 2 4. 5
									$[\phi = 3]$		SVIL N.; >				.]												
January	9. 33 29 9. 48 29 9. 51 29 9. 36 29 9. 38 29 9. 44 29 9. 46 29 9. 53 29 9. 59 29 9. 63 30	9. 71 2 9. 95 2 9. 86 2 9. 63 2 9. 68 2 9. 68 2 9. 73 2 9. 86 2 9. 98 2 9. 02 2	8. 80 8. 91 9. 16 9. 00 9. 16 9. 23 9. 17 9. 12 9. 14 9. 07	24. 9 43. 8 46. 7 63. 3 69. 5 75. 9 75. 4 67. 2 52. 4 37. 3 35. 1	32. 8 54. 4 55. 1 76. 3 84. 0 88. 8 88. 6 78. 9 62. 9 46. 2 43. 8	33. 4 54. 2 55. 9 75. 3 83. 7 88. 7 86. 6 77. 3 61. 3 44. 1	38. 9 60. 5 61. 5 80. 3 88. 1 93. 4 92. 7 82. 9 66. 8 50. 8	20. 2 39. 4 42. 4 58. 6 65. 1 73. 2 73. 2 64. 9 50. 1 33. 3	83. 3 83. 0 73. 9 58. 4 42. 0 39. 6	69 77 84 92 102 107 101 94 79 78 66	-7 22 24 45 53 58 59 48 31 18 16	19 35 36 51 54 65 65 60 48 30	23 39 41 50 52 62 63 61 49 34	24 37 40 51 53 54 53 51 83 83 83	77 6 773 8 88 6 66 4 58 3 71 4 79 8 83 6 75 6	58 759 852 853 443 4445 4445 445 4657 5632 6634 66	70 . 54 . 59 . 14 . 37 . 18 . 18 . 59 . 37 .	215 229 392 422 632 623 539 350 179 178	. 147 . 252 . 278 . 379 . 403 . 580 . 583 . 544 . 366 . 210 . 207	. 148 . 230 . 269 . 386 . 421 . 610 . 593 . 544 . 367 . 201	2. 10 2. 99 4. 10 1. 09 . 35 1. 81 2. 21 3. 50 3. 25 4. 11 2. 77	. 93 1. 00 2. 11 . 40 . 14 . 93 1. 29 2. 43 . 96 1. 73	4. 9 2. 8 .1 .0 .0 .0 .0 .0 .0 .7. 6	6. 6 7. 1 6. 0 3. 1 2. 5 4. 5 3. 9 4. 8 5. 4 4. 3 6. 0	5. 8 4. 6 6. 6 3. 2 3. 8 4. 2 5. 2 6. 4 6. 2 4. 6 6. 3	5. 3 4. 6 5. 4 1. 8 2. 5 3. 5 2. 7 4. 6 3. 6 4. 0	6. 7 6. 0 5. 5 6. 0 2. 7 2. 9 4. 0 3. 9 5. 3 5. 1 4. 2 5. 7

		$[H=1,180 \text{ ft.}; H_b=1,189 \text{ ft.}; h.$ Wind														=4 f	t.; h.	=81	ft.]										
							Wind	d												]	Num	ber	of da	ıys					
		Ву	self-r	egister		N	ımbe	er of	wind	s, 8 a	ı. m.	and	8 p.	m.				Pre	cip-	Sı	now		F	og	m	axi- um np.	ure 32°		lec- city
Month	Average hourly ve-	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	T or more	0.01 inch or mere melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperature	Thunderstorm	Aurora
January February March April May June July August September October November December	10. 6 11. 8 11. 6 9. 5 10. 4 10. 0 9. 3 10. 0 10. 4 11. 3 9. 0	N. N. N. S. S. S. S. S. S. S.	Mii. 30 32 40 37 39 411 344 36 39 31 37 25 41	NW NW NW N. S. NW NE. NW W. N. N.	. 0 1 4 3 1 2 1 2 1 0 0 3 0	21 12 15 6 12 3 7 11 19 11	6 5 9 9 10 8 2 2	4 6 4 8	5 7 8 8 8 4	9 6 11 11 24 15 31 19 20 26 17 19		3 5 1 4 2 3 3 5 6		0 0 0 0 3 3 2 1 1 0 0 0 0 2	6 5 10 9 10 14 20 14 13 17 15 8	13	4 8 10 3 2 7 8 8	10 11 4 6 9 6 3 12 6 2 2 2 3	6 2 5 4 4 1 10 6 1 1 2	15 13 4 3 0 0 0 0 0 1 1 3 8 4 4 7	9 11 1 1 0 0 0 0 0 0 0 0 3	0	2 1 2 3 2 0 0 1 0 4 1 5	0 0 0 1 0 0 0 0 1 0 0 0 1	21 21 2 2 0 0 0 0 0 0 0 2 8	29	28 18 9 0 0 0 0 0 7 21 26	1 3 6 5 3 9 2 1 0	0 0 0 0 0 0 0 0 0 0
	LITTLE ROCK. A $[H=324  \mathrm{ft.};  \mathrm{H_b}=357  \mathrm{ft.};  \mathrm{h_t}=94  \mathrm{ft.};  \mathrm{h_t}$															ft · 1	h = 1	no ft	1										
January February March April May June July August September October November December	9. 9 9. 1 7. 5 8. 6 7. 9 7. 5 8. 0 7. 6 8. 8 7. 1	E. SW. S. SW. SW. SW. E. E.	25 29 27 30 21 29 30 18 25 22 27 22 30	SW. SW. SW. NW. SE. NE. E. NW. NW. NW.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5 10 1 5 2 5 0 3 2 6 11 6	7 3 5 10 4 5 3 1 2 8 7 6	16 16 9 8 24 15 6 6 14 9 8 12	4 5 3 3 4 2 5 8 6 5 1 9	7 8 12 16 18 7 18 28 18 12 6 13	7 7 12 7 5 18 13 8 10 8 5 4	4 3 10 4 2 4 11 7 3 5 9	12 5 10 6 3 4 5 0 4 9 12 10 80	0 1 0 1 0 0 1 1 1 0 1 0 1	9 15 11 9 19 12 21 11 14 18 8	11 8 7 8 13 8 9 7 10 6 3 6	11 12 9 11 9 3 10 3 9 11 7 17	6 9 6 7 8 3 7 1 7 5 7 11 77	4 6 5 6 6 3 5 1 6 5 6 8 6 8	3 3 0 0 0 0 0 0 0 0 1 1	2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 1 0 1 0 0 0 0 0	7 7 3 2 1 0 3 0 3 7 6 9	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 4 4	5 8 0 0 0 0 0 0 0 0 0	0 0 0 0 0 18 19 28 17 0 0 0	15 20 0 1 0 0 0 0 0 0 0 0 2 7	1 0 4 2 4 3 7 1 5 2 2 2 2 3 3	0 0 0 0 0 0 0 0 0 0 0
						[1	H = 20	61 ft.		LOS =338							ha=1	.91 <b>f</b> t	.]										
	5. 9 6. 0 5. 8 5. 6 5. 5 5. 8 5. 8	SW. SW. SW. SW. NE. NE.	16 16 15 25 15 21 21 22 22	NW. NE. NW. SW. W. W. SE. W. E. NE. SE.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5 3 0 1 0 1 3 3 4 13 13	18 15 10 9 6 6 2 3 3 12 9 15	4 7 6 4 11 7 4 7 8 8 2 5	5 2 7 10 8 10 11 4 6 5 3 4	4 5 5 7 6 3 5 6 2 3 2 4 5 5 2	9 22 26 23 28 29 32 25 25 25 20 15 10 264	12 2 3 2 1 3 2 10 10 10 8 12 7	5 2 5 4 2 1 5 4 3 2 4 4 4 4	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12 10 14 9 19 19 19 25 21 18 18 15	11 6 10 16 9 8 8 5 11 6	8 13 7 5 3 2 4 1 1 8 1 10 63	5 12 2 3 0 3 1 1 1 5 1 9	2 10 2 3 0 2 0 0 0 5 1 8 33	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 6 10 14 1 12 5 10 11 6 0 6	1 1 5 4 0 4 1 1 2 2 0 2 2	0 0 0 0 0 0 0 0 0 0	0 0 0 1 0 1 6 1 0 3 1 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 0 1 0 2 2 1 1 2 0 2 1 1 2	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
						[H	[=46	6 <b>f</b> t.;	H <sub>b</sub> =			VIL t=18				ft.; h	a == 23	4 ft.	ļ										
May	10. 9 12. 6 12. 0 8. 9 10. 4 9. 9 8. 9 9. 4 9. 4 11. 5	SW. N. SS. SSW. SW. SW. SW. SSW. SSW.	38 46 35 30 35 37 32 26 38 30 34	NW. W. N. N. NW. NW. NW. NW. NW. NW. N. N. N. N. N. N. N. N.	1 3 2 5 0 1 3 1 0 1 0 1	2 8 10 7 9 26 11 8 12 11 10 14	4 8 2 8 10 8 9 1 5 4 3 7	6 7 5 2 4 1 0 3 5 5 5 2 9		19 11 11 11	16 9 11 9 11 9 25 17 4 8 13 5	2	7 3 9 8 8 3 4 2 1 7 10 4	0 0 0 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7 7 7 10 19 22 14 13 11 12 15 10	9 11 15 7 9 3 14 15 10 7 6 9		10 4 5 8 7 10 10 4 12	10 7 4 5 7 5 8 9	8 111 4 2 0 0 0 0 0 0 0 0 4 4 4		0 0 0 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0	3 2 0 0 0 0 0 1 0 0 0 3 1 5	0 2 0 0 0 0 1 0 0 0 1 1 1 1 1	11 13 0 0 0 0 0 0 0 0 0 0 0 1 1 1	0 0 0 0 2 11 20 21 9 0 0 0 63	23 23 6 5 0 0 0 0 2 16 20 95	0 0 5 3 5 5 9 7 3 2 1 0 40	0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0

#### MACON, GA.

									[φ	=32°	50' N.	; λ=	=83°	38′ \	W.]												
		Pressu	ire			7	Гетр	eratuı	re								,		]	Moist	ure						
		Ext	remes			M	ean			Ext	remes	3	Dev poin			elati mid		Vapo	or pre	ssure	Pre	cipita	tion		Clou	dines	ss
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
January February March April May June July August September. October November December	29. 64 29. 64 29. 68 29. 77 29. 78	29. 79 29. 84 29. 84 29. 96 30. 06 30. 20	29. 34 29. 43 29. 41 29. 31 29. 43 29. 40	37. 1 38. 5 51. 1 56. 3 68. 5 74. 0 76. 5 76. 0 71. 6 60. 9 46. 2 45. 1 58. 5	60. 6 54. 5	647. 3 49. 3 64. 0 66. 9 78. 5 83. 0 84. 0 82. 7 79. 2 69. 1 56. 1 53. 2 67. 8	55, 0 56, 1 71, 6 73, 4 85, 6 90, 6 92, 5 91, 1 87, 4 77, 7 64, 5 59, 3	33. 8 35. 9 48. 2 51. 7 62. 7 68. 1 72. 2 71. 4 68. 2 58. 1 43. 2 42. 5	44. 4 46. 0 59. 9 62. 6 74. 2 79. 4 82. 4 81. 2 77. 8 67. 9 53. 8 50. 9	75 84 91 97 102 99 98 94 86 81	16 17 36 34 52 55 61 61 59 42 23 31	33 33 34 48 58 66 70 72 68 58 40 41 53	o 34 33 41 44 54 69 72 71 60 41 43	34 33 42 45 54 65 69 72 71 60 42 44	81 77 74 71 78 80 86 89 88 81 84	47 42 50 55 62 66 63 51 68	49 45 57 64 72 77 73 62 73	. 358 . 497 . 655 . 730 . 772 . 698 . 501 . 273 . 270	In. 0, 235 , 207 , 292 , 320 , 436 , 599 , 710 , 775 , 774 , 558 , 283 , 294 , 457	In. 0. 230 . 207 . 293 . 330 . 433 . 626 . 719 . 799 . 771 . 534 . 294 . 305	In. 9. 19 7. 02 3. 06 7. 20 . 30 2. 56 7. 48 5. 25 1. 40 2. 33 2. 68 4. 60 53. 07	3. 19 1. 21 3. 01 . 15 . 84 4. 70 2. 06 . 67 1. 12 2. 15	In. 3. 1 T T T .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0	5. 9 6. 2 4. 7 5. 5 3. 4 3. 4 4. 7 4. 5 5. 6 4. 2 4. 4 7. 5	5. 5 5. 8 5. 6 4. 8 4. 4 3. 8 5. 4 5. 0 5. 8 4. 3 6. 8 5. 2	4. 0 4. 4 4. 3 3. 8 6. 9	5. 5 5. 8 5. 8 5. 8 4. 1 5. 6 4. 9 5. 7 4. 5 7. 2 5. 1
									F4 =		DISO				7 7			,									
January February March April May June July August September October November December 2 Year	28. 94 28. 97 28. 97 29. 02 29. 04	29. 37 29. 25 29. 41 29. 47 29. 57 29. 44	28. 65 28. 66 28. 53 28. 43 28. 13	2, 7 30, 6 36, 1 57, 6 59, 6 71, 7 66, 5 60, 1 43, 0 29, 0 25, 2	8. 7 36. 2 45. 2 69. 7 70. 0 84. 8 79. 9 68. 8 51. 6 35. 0 29. 7	8. 3 37. 1 44. 8 68. 8 71. 9 84. 8 78. 5 66. 6 50. 0 34. 4 28. 6	43. 2 50. 0 74. 5 75. 4 90. 1 84. 4 71. 9 55. 8 40. 2 35. 3	25. 8 19. 6	11. 0 5. 9 35. 2 41. 4 64. 0 65. 4 78. 8 73. 9 64. 4 48. 0 33. 0 27. 4 45. 7	42 46 72 70 87 88 107 101 89 76 61 54	-26 -21 4 16 37 44 55 55 44 24 11 -10	8 1 26 30 48 50 60 60 55 38 25 22	10 4 26 31 50 54 61 60 58 40 26 24	10 4 28 32 50 54 61 61 58 40 27 24	93 92 84 77 72 67 80 84 83 84 88	81 8 67 6 60 6 52 8 58 8 46 4 54 8 70 7 66 7 77 8	82	057 147 176 350 370 530 526 457 244 139 132	. 189 . 379 . 420 . 553 . 540 . 510 . 272 . 146 . 139	. 059 . 161 . 195 . 374 . 435 . 542 . 543 . 499 . 272 . 152			17. 9 2. 4 7. 3 .0 .0 .0 .0 .0	7. 5 6. 6 6. 0 5. 9 3. 3 5. 3 6. 0 6. 2 6. 5	6. 0 6. 2 6. 1 4. 1 4. 7 5. 9 6. 2 6. 7 6. 4	7. 4 6. 3 6. 4 5. 8 5. 0 3. 3 4. 6 4. 4 5. 5 5. 5	6. 5 6. 7 7. 0 6. 8 6. 1 5. 8 3. 7 4. 9 5. 7 5. 8 6. 4 6. 6
											JETT ' N.; <mark>)</mark>																
March 22 May 22 Magust 22 Motober 22 November 22 December 22	9. 19 2 9. 02 2 9. 22 2 9. 20 2 9. 16 2 9. 17 2 9. 20 2	9. 62 2 9. 43 2 9. 63 2 9. 54 2 9. 57 2 9. 44 2 9. 64 2 9. 74 2 9 9 9 9 9 9 9	8. 77 3 8. 59 4 8. 48 5 8. 91 6 8. 70 6 8. 73 5 8. 70 4 8. 44 2 3. 18 2	2. 7 1 23. 6 3 31. 9 49. 5 6 2 5 6 2 6 6 7 6 6 7 3 6 6 7 3 6 6 7 9 6 7 9 6 7 9 9 9 9	10. 2 30. 4 35. 5 35. 5 55. 3 55. 3 55. 4 56. 7 66. 7 62. 6 52. 6 546. 1 430. 6 227. 1	8. 4   128. 8   344. 7   4452. 6   6   6   71. 4   7   7   7   7   7   7   7   7   7	15. 1 - 34. 7 2 3 3 4 7 4 0 . 2 3 5 5 6 6 . 4 8 9 7 2 . 2 8 6 6 . 9 8 5 0 . 0 8 3 4 . 8 2 2 . 5	-1. 7 20. 4 27. 9 41. 5 447. 3 60. 5 57. 2 551. 1 85. 6 23. 0	64. 7 59. 0 42. 8 28. 9 26. 2	41 - 54 58 84 82 104 93 86 75 57 51	-8 1 -22 - 0 2 17 2 31 4 40 4 47 5 48 5 39 49 23 3 10 23 -5 2 -22 33	1 2 6 2 1 4 5 6 4 5 5 5 6 4 5 5 3 6 3 2 5 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	8 27 43 6 45 6 56 5 56 1 51 51 51 55 23 23	5 84 85 7 78 7 72 6 71 6 65 77 80 78 85 85 84	77 79 74 65 65 65 68 69 70 79 82	85 82 75 71 65 61 72 76 76 81 85	. 04 .11 .26 .31 .44 .41 .36 .20 .12	49 .0 11 .1 43 .1 68 .2 19 .3 46 .4 66 .4 60 .2 10 .3 10 .3 11 .1 11 .1 12 .1 13 .1 14 .1 14 .1 15 .1 16 .2 17 .1 17 .1 18	53 . 1 888 . 2 14 . 3 55 . 4 35 . 4 94 . 3 21 . 2 36 . 1 23 . 1	058 2. 133 2. 149 1. 195 5. 105 1. 164 4. 147 4. 185 3. 117 1. 128 3.	33 1 89 02 30 1 41 44 79 1 05 1 94 21 15	. 15   2 . 77   1 . 30   . . 65   . . 58   24   . . 08   . . 30   . . 90   . . 58   28   .	4. 0 6 3. 8 3 . 0 6 . 0 6 . 0 6 . 0 6 . 0 6 . 5 2 8	3. 8 6. 7. 1 7. 2 8 6. 8 6. 8 6. 8 6. 8 6. 8 6. 8 6. 8	3. 3   7. 6   7. 6   8. 2   7. 0   8. 4   6   7. 4   6   7. 4   6   7. 4   6   7. 5   8. 3   8. 7   8   8   8   7. 4   6   7. 4   6   7. 5   8   8   7. 4   6   7. 5   8   8   7. 5   8   8   7. 5   8   8   7. 5   8   8   7. 5   8   8   7. 5   8   8   7. 5   8   8   7. 5   8   8   7. 5   8   8   7. 5   8   8   7. 5   8   8   7. 5   8   8   7. 5   8   8   7. 5   8   8   7. 5   8   8   8   7. 5   8   8   8   8   8   8   8   8   8	5. 4 5 6 6 7. 2 7. 5 9 6 6 7. 3 5 9 6 6 7. 3 5 7 6 6 7 6 8 8 8 8 8 8 8 8 8 8	0.0 5.6 6.6 7.3 3.3 5.8 6.0 7.2 7.5 7.4 7.5 7.6 7.8 7.8 7.8 7.8 7.8 7.8 7.8 7.8
											ORD	•			7									1			
February 28 March 28 April 28 May 28 June 28	3. 51 29 3. 68 29 3. 64 29 3. 59 29 4. 55 28 55 28 55 28 56 28 66 28 68 29	9, 05   28 9, 18   28 9, 11   28 8, 81   28 8, 75   28 8, 75   28 8, 89   28 8, 90   28 9, 12   28 1, 07   27	7. 88 3. 38 3. 38 3. 11 4 4 4 5 5 5 5 5 5 5 5 6 9 9 3 6 9 9 3 6 9 9 3 6 9 9 3 6 9 9 9 3 6 9 9 9 3 6 9 9 9 9	6. 8 3. 4 7. 4 2. 9 6. 6 5. 9 7. 9 2. 3	4 5 6 7 7 8 8 8 8 5 5	9. 9 5 7. 2 5 6. 6 6 6. 8 7 4. 8 8 8. 1 8 8. 1 8 8. 1 8 7. 4 7 7. 4 7 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9	1. 4 3 9. 2 3 9. 4 4 6. 4 4 9. 5 5 6. 6 5 9. 5 5 3. 6 4 7. 8 3 0. 5 2	34. 5 4 34. 1 4 33. 9 6 2. 2 6 5. 5 7 4. 2 7 5. 4 6 8. 8 5 5. 7 4 1. 7 3	40. 6 42. 8 46. 6 55. 4 31. 2 65. 8 71. 0 71. 8 44. 5 88. 3 3. 1 7. 1	62 65 79 87 97 94 99 101 96 97 71	23 34 21 41 35 44 42 50 48 50 46 49 34 41 28 34 15 24	1	38	94 96 90 92 90 89 80 78 78 75 80		82 64 46 43 39 38 31 24 28 26 33 86	. 19 . 26 . 36 . 36 . 34 . 26 . 20 . 12	10 98 64 57 58 17 64 22	2	229 2. 257 1. 280 1. 32 3. 351 . 367 . 388 47 .	68 42 52 62 86 58 00 35 T	. 18 . 60 . 51 . 28 . 44 . 00 . 20 . T	7 7 6.5 6.5 T 5.0 5.0 2.0 0 1.0 0 1.0 0 1.	9 9 5 9	76 66 55 4 1 1 2 2	. 6 7. . 7 6. . 6 5. . 4 5.	9 3 8

66. 1 68. 6 41. 1 54. 8 101 15 39 ... 39 86 ... 45 .253 ....

. 254 17. 19 1. 35 6. 0 4. 1

Year\_\_\_\_ 28. 62 29. 18 27. 88 43. 3

	$[H=330~{\rm ft.;~}H_b=370~{\rm ft.;~}h_t=$ Wind $By~{\rm self-register} \qquad Number~of~winds,~8~a.~m.~and~8~p.$														.; h <sub>r</sub>	=73 f	t.; h	=87	ft.]										
												1	Vum	ber	of da	ys		_											
		Bys	self-re	gister		Nu	ımbe	r of	wind	ls, 8 a	a. m.	and	8 p.	m.				Pre itat	eip- ion	Sı	now		F	og	mı	axi- um np.	ure 32°		lec-
Month	Average hourly velocity	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	6.04 inch or over	more	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperatu	Thunderstorm	Aurora
January February March April May June July August. September October November December	Mi. 7. 2 7. 2 8. 3 7. 9 6. 3 6. 4 6. 9 5. 3 5. 6 6. 6 7. 1 7. 4 6. 8	S. S	Mi. 38 30 32 25 20 29 47 27 17 20 25 24 47	S. NW. NW. SW. NW. NE. SE. NW. NE. SE.	1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5 11 7 3 9 5 3 6 12 20 16 14	5 7 3 9 3 9 2 8 16 12 10 16	5 5 1 6 16 9 2 13 8 8 2 5	1 7 6 10 4 6 4 4 3 1	10 14 13 15 16 8 18 13 1 6 4	7 4 3	2 5 17 1 0 0 6 4	22 16 16 3 3 5 5 15 14 8	1 0 1 0 1 0 0 1 1 1 2 4	13 13 18 12 6 9 4 13 15 6	7 16 15 15 19 10 6 7	2 10 7 7 8 9 18	17 13 10 9 4 8 7 10 7 8 7 12	10 8 8 3 8 7 5 6 3 9	2 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 1 0 0 0 0	4 1 2 0 0 0 5 7 18	6 2 1 0 0 0 0 0 0 0 1 1 0 2 1	0 0 0 0	3 18 24 21 6 0	9 0 0 0 0 0 0 0 4 2	1 4 7 2 9 10 11 9 2 0	0 0 0 0 0 0 0 0 0 0
	$\begin{array}{c} \text{MADISON,} \\ \text{[H=938 ft.; H}_{b} = 974 \text{ ft.; h}_{t} = 70 \end{array}$															) ft + '	h	70 <i>#</i> + 1	1										
May	7. 2 7. 7 7. 7 8. 6 10. 4 9. 5	NW. W. NW. NW. SW. NE. E. S. S. S. NW.	24 22 21 30 21 25 27 26	NE. SE. SW. SW. NE. NE. NE. NW. NW.	0 0 0 1 0 0 0 0 0 0 0	12 9 5 12 7 10 3 6 3 6 6 3 82	1 4 2 3 3 16 14 7 6 4 3 2 65	3 2 3 2 2 4 12 6 1 2 1 1	6 5 11 8 4 6 9 9 19 2 3 12	5 4 10 10 15 12 4 14 19 16 10 15	4 7 5 16 5 8 7 2 6 11 10 86	15 13 10 4 6 2 6 9 3 8 9 6	16 14 16 16 8 5 4 2 7 16 16 16	0 0 0 0 0 1 0 2 2 0 2 1 3	6 7 5 5 9 10 17 12 10 12 7 8	9 8 11 12 7 7 10 12 9 3 6 4	16 14 15 13 15 13 4 7 11 16 17	13 13 10 9 8 11 5 15 10 9 5	8 8 6 5 7 4 14 10 9 4 6	21 17 10 7 0 0 0 0 0 0 0 0 9 9	13 13 5 5 0 0 0 0 0 0 2 5 5	0 0 0 0 0 0 0 0 0 0 0 0	15 9 10 10 8 5 2 10 17 14 6 20	3 0 0 2 0 0 0 2 2 3 3 4	26 24 7 5 0 0 0 0 0 0 6 10	0 0 0 0 0 0 14 9 0 0 0 0	23 12 0 0 0 0 0 5	15 6 6 0 0	0 0 1 6 1 1 0 0 4 3 3 0
							[H=	652 <b>f</b>		MA.	_		,			ft.; h	la=1]	11 ft.	1										_
February March April May June July August September November December 1	9. 8 8. 8 9. 5 9. 4 7. 9 7. 1 9. 5 9. 4 9. 6 2. 0 11. 3	W. W. W. NW. NW. NW. NW. S. W. S. W.	34 31 36 30 30 29 30 42 38 45	W. SE. NW. S.	0 1 0 0 3 0 0 0 0 0 3 4 6	2 4 1 8 8 8 2 9 5 6 6 8 1	1 2 2 0 1 1 0 3 1 1 3 0 15	3 3 4 1 3 7 5 11 4 0 2 3 46	3 0 6 5 4 3 5 3 5 3 1 4	8 9 12 9 10 8 5 7 13 17 13 23	0 4 7 2 5 4 3 6 9 7 3 5	35 29 19 12 8 7 13 12 9	8 7 8 19 21 22 11 13 8 8 13 7	2 0 3 4 2 6 11 2 5 1 0 0	0 10 5 2 4 6 15 2 7 3 2 3	4 6 11 10 15 15 10 11 12 10 5 6	27 13 15 18 12 9 6 18 11 18 23 22	20 11 17 8 15 12 5 14 8 16	16 10 13 6 12 7 3 11 7 9	25 15 15 12 0 0 0 0 0 10 20 15	20 11 12 4 0 0 0 0 0 5 15 8	0 0 0 0 1 1 0 0 0 0 0 0	1 1 2 2 3 1 1 3 2 4 2 2 2 2	0 0 3 1 1 3 0 1 5 1 0 2	27 26 12 8 0 0 0 0 1 12 16	0 0 0 0 0 0 0 5 2 0 0 0	31 28 28 21 2 0 0 0 0 10 25 28	0 0 1 1 5 4 2 7 4 3 0 0	0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
						Œ	=1.3	14 ft	.: H:		DF0					ft.; 1	1.=5	8 ft. 1										·-	
January February March April May June July August September October November Year 44070		W. W. W. W.				14 18 9 11 5 2 2 2 4 1 6 11	4 4 3 4 1 1 2 1 4 6 3 5	1 0 2 3 4 1 0 0 1 1	11 4 6 3 6 1 1 0 2 9 9 6 58	9 7 10 6 3 1 1 6 12 15 7 9	5 6 3 4 8 3 4 10 7 3 5 6	6 2 12 9 8 19 24 21 7 12 11 7	8 11 15 19 24 19 22 19 10 20 21 21 21 21 21 21 21 21 21 21 21 21 21	4 6 2 1 3 3 6 3 5 4 13 9	3 3 7 11 11 13 25 26 23 23 19 0	4 5 7 6 13 8 3 4 2 4 6 5	24 21 17 13 7 9 3 1 5 4 5 26	20 1 17 1 6 7 15 7 3 0 3 0 1 1 15 1	13 5 6 8 6 3 0 0 1	3 9 8 3 1 0 0 0 0 0 0 4	2 4 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 2 0 0 0 0 0 0 0 0 0 3	20 7 0 0 1 1 0 0 0 1 0 0 23 53	7 2 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 1 1 1 1 2 1 2	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 7 3 11 16 11 4 0 0	11 12 11 4 0 0 0 0 0 0 4 26 16	0 0 0 0 4 3 1 0 1 0 0 0	0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0

## UNITED STATES METEOROLOGICAL YEARBOOK

Table 16.—Annual meteorological summaries for the year ended Dec. 31, 1936—Continued Memphis, Tenn.

									[φ=	=35°0	9′ N.;	λ=	90°0	3′ ₹	V.]												
	F	ressu	re			1	'empe	ratur	e										ľ	Aoisti	ıre						
		Extr	emes			M	ean			Exti	remes		Dew ooin			elati mid:		Vapo	or pre	ssure	Pre	cipita	tion		Clou	dines	SS
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 р. ш.	Daylight
July	29. 49 29. 63 29. 62 29. 48 29. 54 29. 56 29. 57 29. 66 29. 77 29. 74	29. 84 29. 99 29. 91 29. 72 29. 80 29. 76 29. 78 29. 95 30. 12 30. 06	29. 16 29. 01 29. 30 29. 18 29. 31 29. 33 29. 26 29. 37 29. 36	31. 6 32. 3 50. 5 52. 1 67. 3 73. 9 76. 5 71. 4 55. 8 42. 5 42. 1	38. 6 60. 7 60. 9 78. 2 86. 5 85. 4 88. 1 81. 5	61. 7 63. 1 77. 4 86. 7 85. 4 88. 6 80. 8 64. 6 51. 4 48. 6	44. 5 67. 0 67. 5 82. 1 90. 4 89. 3 92. 5 86. 0 70. 9 57. 3 53. 6	28. 8 47. 9 49. 7 64. 4 70. 7 74. 6 74. 9 69. 6 54. 3 40. 1	36. 4 36. 6 57. 4 58. 6 73. 2 80. 6 82. 0 83. 7 77. 8 62. 6 48. 7 46. 2	90 103 97 101 95 83 81 68	6 1 36 30 52 60 66 62 55 38 25 23	24 40 42 55 60 70 68 65 50 34 36	28 41 41 54 59 71 67 67 51 34	27 30 41 43 54 61 71 67 66 52 36 37 49	67 70 66 64 81 75 82 81 73 78	63 68 50 52 44 42 63 51 62 60 54 66	% 61 68 50 52 48 43 64 50 63 65 56 68 57	In. 0. 145 . 154 . 260 . 289 . 450 . 537 . 737 . 685 . 636 . 374 . 212 . 226 . 392	In. 0.157 .176 .274 .291 .426 .523 .766 .665 .667 .398 .216 .242 .400	. 181 . 275 . 305 . 431 . 546 . 771 . 667 . 660 . 400 . 226 . 235	1. 82 4. 12 1. 21 1. 91 1. 22 6. 49 . 40 6. 04 3. 39 3. 64		.00.00.00.00.00.00.20.2	4. 5 4. 8 4. 2 6. 8	5. 6 4. 1 5. 3 4. 5 2. 3 5. 4 5. 8 5. 1 3. 8 6. 2	5. 0 3. 9 5. 3 4. 4 2. 5 5. 1 2. 5 4. 9 4. 0 3. 7	4. 1 5. 0 4. 2 2. 4 5. 1 3. 0 5. 3
											IDIA 1′ N.;				V.]												
January February March April May June July September October November Dccember Year	29. 55 29. 67 29. 63 29. 53 29. 60 29. 62 29. 61 29. 67 29. 79 29. 76	30. 02 29. 82 29. 96 29. 92 29. 78 29. 82 29. 79 29. 78 29. 92 30. 10 30. 10	29. 13 29. 26 29. 14 29. 31 29. 28 29. 40 29. 37 29. 42 29. 39 29. 50 29. 41	39. 3 38. 6 52. 5 55. 7 67. 4 74. 5 75. 3 74. 8 72. 2 57. 9 44. 5 44. 5	49. 1 50. 3 68. 2 68. 0 79. 6 88. 7 87. 3 87. 1 86. 4 74. 7 60. 0 55. 5	46. 6 49. 0 64. 7 65. 3 75. 6 87. 5 81. 5 82. 9 80. 1 69. 3 54. 7 51. 8	56. 7 73. 3 73. 6 83. 0 93. 5 91. 5	33. 8 35. 0 49. 9 50. 6 62. 8 69. 3 71. 5 70. 9 69. 1 54. 3 41. 3 41. 5	44. 4 45. 8 61. 6 62. 1 72. 9 81. 4 81. 5 80. 9 79. 8 66. 5 52. 6 50. 4	77 78 87 90 89 101 100 96 96 89 85 76	16 17 37 33 53 54 63 60 59 39 24 27	33 46 49 60 66 71 70 67 53 39 41	34 33 43 45 58 63 70 69 66 53 39 43	36 36 45 47 61 63 71 71 68 55 40 44 53	85 81 80 79 77 75 86 87 85 84 80 87 82	56 53 49 50 66	62 52 56 62 46 72 69 67 61 62 76	. 213 . 345 . 373 . 519	0. 219 . 219 . 314 . 335 . 492 . 587 . 734 . 717 . 659 . 427 . 270 . 302 . 440	. 235 . 335 . 350 . 538 . 591 . 765 . 773 . 686 . 448 . 275 . 307	6. 82 10. 88 1. 96 6. 71 2. 48 1. 71 6. 22 4. 60 1. 17 . 08 2. 80 6. 85	2. 16 8. 04 . 66 3. 48 . 72 1. 00 1. 53 2. 08 . 44 . 04 1. 70 2. 00 8. 04	1. 4 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0	5. 6 6. 0 4. 9 5. 0 3. 9 1. 0 6. 4 3. 3 3. 0 3. 6 4. 3 6. 3	4. 4 6. 5 5. 4 6. 1 5. 1 1. 7 4. 8 3. 4 3. 8 3. 6 5. 2 7. 4	4. 1 4. 7 4. 9 3. 6 4. 6 2. 0 6. 8 3. 4 2. 3 3. 9 3. 7 5. 1 4. 1	4.8 6.2 5.1 5.1 4.7 1.5 6.0 3.6 4.0 4.9 6.9
											MI, 3' N.;			2′ W	V.]												
February March April April May June July August September October November December	29. 97 30. 05 29. 94 29. 90 30. 00 29. 97 29. 95 29. 94 30. 04	30. 38 30. 17 30. 25 30. 08 30. 09 30. 14 30. 11 30. 07 30. 09 30. 29 30. 26	29, 75 29, 67 29, 84 29, 65 29, 55 29, 68 29, 81 29, 86 29, 76 29, 84 29, 88	81. 7 81. 5 78. 1 69. 7	85.3 84.9	69. 1 69. 1 70. 7 75. 0 77. 4 78. 4 82. 1 81. 9 80. 5 72. 7 72. 5	75. 1 74. 5 76. 9 80. 2 82. 3 84. 5 87. 6 86. 8 87. 3 85. 8 78. 2 76. 7	62. 6 61. 9 63. 7 68. 8 71. 8 73. 6 76. 7 77. 4 76. 3 74. 6 65. 9 66. 4 70. 0	68. 8 68. 2 70. 3 74. 5 77. 0 79. 0 82. 2 82. 1 81. 8 80. 2 72. 0 71. 6	83 82 84 85 88 90 90 90 90 89 85 81	45 42 50 57 66 68 66 70 72 70 44 49	59 59 60 62 67 72 74 73 72 62 62	61 61 58 63 67 72 73 73 71 62 63	74 74 73 72 62 63	77 72 75 79 76 78 76 82 76 80	58 61 66 73 66 68 67 66 61 65	77 71 70 70 82 76 77 75 76 70 73	. 532 . 531 . 577 . 668 . 800 . 824 . 835 . 822 . 791 . 571	0. 552 . 555 . 515 . 589 . 670 . 779 . 814 . 822 . 801 . 769 . 585 . 577 . 669	. 560 . 544 . 609 . 657 . 784 . 825 . 836 . 813 . 785 . 586 . 589	3. 93 2. 31 3. 71 2. 15 8. 05 21. 41 8. 52 8. 55 4. 65 7. 59 4. 35 2. 08	2. 19 . 78 1. 48 5. 26 5. 50 2. 19 3. 49 1. 42 3. 02 2. 23 . 78 5. 50	.0	4. 9 6. 7 4. 7 3. 5 5. 7 5. 4 5. 5 5. 7 4. 6 4. 8 5. 3 5. 8	6. 7 7. 2 5. 2 5. 7 5. 8 4. 7	4. 1 5. 1 5. 5 4. 4 4. 7 7. 3 5. 2 5. 4 4. 9 3. 6 4. 6 4. 9 5. 0	4. 8 6. 5 5. 5 4. 2 5. 8 6. 9 5. 4 5. 6 5. 8 5. 0 5. 9 5. 6
											CIT																_
January February March April May June July August September. October November. December.	27. 53 : 27. 66 : 27. 45 :	27. 99 28. 05 27. 85	26. 98 27. 35 27. 07	-10. 8 28. 1 33. 8 53. 5 62. 8 73. 0 63. 6 51. 2 38. 2 28. 9 17. 0	14. 2 -1. 8 38. 5 49. 2 72. 8 79. 9 92. 3 81. 5 70. 4 56. 7 40. 8 23. 7 51. 5	52. 1 75. 8 83. 2 95. 0 83. 6 72. 9 55. 8 38. 0 23. 4	42. 8 56. 0 78. 2 85. 4 97. 3 87. 1 76. 3 61. 5 45. 4 29. 5	31. 4 51. 0 59. 0 71. 1 62. 0 48. 6 35. 5 23. 8 11. 8	10. 8 -5. 6 34. 2 43. 7 64. 6 72. 2 84. 2 74. 6 62. 4 48. 5 34. 6 20. 6 45. 4	46 43 59 85 93 106 108 102 94 83 71 47	3 0 34 44 54 47 33 24 -4 -16	22 26 41 44 50 47 38 29 23 11	31 39 41 47 46 37 30 25 16	-10 24 31 38 39 43 44 31 25 15	62 76 75 64 53 48 58 63 70 77	64 55 55 32 27 23 32 34 41 54	65 55 50 29 23 20 29 28 43 61 70	. 023 . 119 . 154 . 259 . 303 . 379 . 331 . 240 . 161 . 126 . 077	. 243 . 264 . 328 . 318 . 236 . 170 . 138 . 093	. 037 . 137 . 183 . 236 . 247 . 290 . 303 . 205 . 173 . 141 . 094	0. 58 . 40 . 21 . 23 1. 12 . 15 1. 00 . 39 . 69 . 57 . 37 . 35 6. 06	0. 18 . 16 . 05 . 10 . 93 . 06 . 84 . 10 . 38 . 27 . 33 . 16	. 0 . 0 . 6 7. 1 6. 6	3. 2 4. 0 4. 3 4. 7	5. 1 6. 8	6. 8 5. 3 5. 4 6. 3 3. 5 4. 5 3. 2 4. 3 3. 2 5. 5 3. 9 7. 0	6. 8 5. 9 6. 0 6. 3 3. 6 3. 6 3. 1 4. 0 3. 4 4. 8 6. 5

	1						[H	=271	ft.;		399 fi					0 ft.;	h <sub>a</sub> =	86 ft	.]										
							Win	d 													Num	ber	of da	ays					
		Ву	self-r	egister		N	umb	er of	wind	ls, 8 :	a. m.	and	8 p.	. m.					ecip-	S	now		F	'og	m	axi- um mp.	ure 32°		Clec- icity
Month	Average hourly velocity	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	T or more	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperat	Thunderstorm	Aurora
January February March April May June July 3 eptember October November December	Mi. 8.8 8.4 9.6 9.3 6.7 8.3 7.7 6.8 6.6 7.1 8.4 7.0 7.9	N. N. S. SW. SW. SW. E. SW. E. SW. E. SW.	Mi. 26 27 35 24 25 30 27 17 24 21 30 24	N. NW SW. SW. SW. NW. NW. NW. NW.		11 10 10 3 11 5 4 6 14 9	15 7 9	7 5 4 12 3	5	6 14 8 10 2 6 7 13 7 6	10	2 0 4 5 3 15 8 5 2 2 2 3 2	4 3 8 5 5 5 3 8 0 3 3 6 4	0 0 2 2 1 3 0 0 1 0 3 4	11 10 16 12 16 21 7 19 10 14 16 9	7 4 7 8 9 5 18 10 12 6 6 7	13 15 8 10 6 4 6 2 8 11 8 15	9 12 7 9 7 4 8 2 4 8 6 11		6	3 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 0 1 1	3 1 0 0 0 0 0 1 0 0 1 0 0 5	0 0	8	0000	0 19	1 5 2 6 6 3 10 10 1 7 7 3 1 1 1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0 0 0 0 0 0 0 0 0 0 0
							[H=	=343	ft.; H		ERI 75 ft.					ft.: 1	ha=9	2 ft.1										! 1	
January February March April May June July August September October November December	6. 9 7. 1 7. 6 6. 9 5. 7 5. 6 6. 0 4. 7 5. 1 5. 2 5. 9 6. 2	NE. SW. SW. E. NE. NE.	22 26 26 26 22 26 21 28 28 17 17 20 22	W. NW.	000000000000000000000000000000000000000	7 9 6 8 9 6 1 3 4 12 14 16 95	17 20 6 11 15 15 6 9 9 16 13 16	8 8 7 7 13 2 1 10 15 6 6 8 91	4 4 6 6 8 1 3 10 7 6 3 7	4 8 10 5 7 5 12 9 6 5 2 6 7 7	4 4 12 10 2 14 23 9 5 3 9 4	12 0 4 5 5 11 11 2 4 2 2 1	6 3 9 8 2 2 3 3 2 3 4 3 4 8	0 2 2 0 1 4 2 7 8 9 7	13 8 12 11 13 27 8 17 13 16 13 6	7 7 9 7 10 2 11 10 14 7 6 7	11 14 10 12 8 1 12 4 3 8 11 18	15 11 7 9 8 3 17 14 8 3 7 14	14 9 4 9 7 3 14 10 7 1 4 8	3 0 0 0 0 0 0 0 0 0	3 0 0 0 0 0 0 0 0 0	0 0 1 0 0 0 0 0 0 0 0 0 0	8 3 3 5 2 0 0 2 2 9 5 9	2 1 1 1 0 0 0 0 0 0 2 3 1	2 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 24 22 21 15 0 0	10	4 3 7 7 6 19 8 7 0	0 0 0 0 0 0 0 0 0 0 0
							[H=	:11 ft	.; H	=25		AMI,			=117	ft.; h	1a=16	68 ft.	]										
August	11. 7 10. 3 10. 6 11. 6 9. 4 9. 8 9. 0 7. 3 9. 1 0. 3 9. 9	SE. S. SE. SE. SE. SE. E. E. E.	25 24 23 25 29	SW. SW. S. S. N.E. SE. SE. S.	0 1 1 1 0 2 1 2 0 0 0 0 0	12 10 4 7 4 6 6 5 6 13 17 11	3 7 4 12 23 13 6 8 16 16 10 13	13 10 7 10 17 8 20 31 19 9 17 16	13 8 18 19 5 20 17 11 10 9 3 5	10 12 10 3 1 7 3 4 5 4 2 8	4 4 7 2 5 0 7 1 0 1 2 0 0 33	3 3 5 3 5 2 2 2 2 3 1 3 4	4 4 7 4 2 4 1 0 1 9 6 5	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12 8 9 15 9 5 10 8 6 11 5 10	13 6 14 11 11 9 13 16 15 11 15 11	6 15 8 4 11 16 8 7 9 10 10	10 7 12 20 18	4 112 8 6 111 118 116 114 115 112 8 8 8	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 4 1 2 1 0 0 0 0 0 1 0 0	1 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	2 5 2 3 6 17 14 15 15 8 2 1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
						(H	I = 2,	351 ft		MIL =2,3						ft.; l	h <sub>a</sub> =8	55 ft.]	l										
February March April May June July August September October November	5. 6 1 7. 1 1 7. 1 1 8. 3 8 7. 3 1 7. 3 1 8. 3 8 8. 6 1 1 8. 6 5 8 8. 7 8 8. 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	NE. NE. S.N. S.E. N. S.S. S.S. S.S.	26 30 31 34 31 26 30 27 25 38	N. NW. W. NW. NW. NW. NW. N. N. NW. NW.	0 0 0 0 1 0 0 0 0	10 10 14 14 6 8 7 14 12 15 6 4	20 12 2 6 3 11 6 13 1 1 1 3	2 7 1 8 11 9 10 10 6 4 2 5	7 7 5 4 3 1	9 8 17 13 13 6 15 11 13 13 23 18	4 2 2 3 6 5 5 0 5 8 8 11	7 10 5 6 4 4 3 11 6 1	0 7 2 5 3 8 7 5 7 0 8 5	2 1 1 1 1 2	8 6 18 14 19 12 16 14 13	11 12 13 9 14 11 15 12 10	16 11 11 11 11 4 2 1 4 2 7 10 13	5 10 6 6 6 6 3 8 3 6 4	3 3 4 2 3 4 3 3	21 9 1 3 0 0 0 0 0 5 5	2 0 0 0 0 0 4	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 3 0 0 0 0 0 0 0 0 0	25 26 6 3 0 0 0 0 0 1 4 15	0 0 0 7 13 29 14 5 0 0	31 29 24 10 0 0 0 0 0 12 24 31	0 0 0 0 0 0 3 4 2 8 1 0 0	0 0 0 1 0 2 0 0 0 0 0 0

Year..... 6.7 S.

# UNITED STATES METEOROLOGICAL YEARBOOK

Table 16.—Annual meteorological summaries for the year ended Dec. 31, 1936—Continued MILWAUKEE, WIS.

$[\phi = 43^{\circ}02']$	N.; )	$=87^{\circ}54'$	W.]
--------------------------	-------	------------------	-----

	F	ressu	re	- Unipolitical visit of the control															]	Moist	ure						
		Extr	emes			M	ean			Ext	remes		Dev poin			elati mid		Vap	or pre	ssure	Pre	cipita	tion		Clou	dine	SS
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
January February March April May June July August September. October November. December.	29. 29 29. 30 29. 22 29. 23 29. 26 29. 29 29. 29 29. 33 29. 37	29. 66 29. 70 29. 70 29. 67 29. 67 29. 67 29. 57 29. 71 29. 78 29. 78 29. 78	28. 90 28. 75 28. 57 28. 92 28. 90 28. 95 28. 80 28. 76 28. 47	45 31	76.4	17. 2 13. 1 36. 9 41. 7 61. 9 65. 1 77. 4 73. 8 66. 9 52. 0 36. 6 32. 4 47. 9	21; 9 19: 3 43: 9 48: 1 70: 6 71: 1 82: 5 80: 4 72: 9 57: 3 42: 7 38: 3	29. 1 33. 5 50. 8 52. 9 67. 2 65. 3 59. 2 42. 3 28. 3 23. 9	40. 8 60. 7 62. 0 74. 8 72. 8 66. 0 49. 8 35. 5 31. 1	69	-21 -17 8 18 37 43 56 56 45 28 14 -6 -21	10 3 27 29 47 47 57 60 56 39 24 24 35	6 26 31 47 48 58 62 57 40 24 24	0 6 27 31 46 47 56 61 56 41 26 25	% 80 78 75 71 69 65 62 73 79 77 71 76 73	68 61 62 57 56 54 63 66 64 58 66	% 73 72 67 68 60 55 50 66 70 66 63 73 65	In. 0. 086 . 063 . 151 . 171 . 331 . 324 . 478 . 524 . 468 . 251 . 138 . 141 . 260	In. 0, 087 . 067 . 143 . 183 . 332 . 339 . 495 . 558 . 493 . 269 . 138 . 141 . 270	. 151 . 181 . 335 . 332 . 460 . 545 . 478 . 275 . 146 . 148	2. 32 . 67 2. 30 2. 55 1. 93 . 28 5. 92 5. 59 3. 77 . 34	. 78 . 20 . 76 1. 00 1. 39 . 22 1. 66 2. 09 1. 80 . 24 1. 00	13. 0 . 0 . 0 . 0 . 0 . 0 T	7. 7 6. 7 4. 9 4. 8 3. 6 5. 4 5. 2 6. 5 5. 5 6. 2	8.0 5.7 5.9 4.0 4.7 5.3 7.0 6.2 6.1	5. 7 6. 7 5. 5 4. 7 4. 2 4. 4 4. 7 4. 0 6. 2 6. 2	5.4
											APO ' N.;																
January February March April May June July August September October November December	29. 07 28. 84 29. 05 29. 00 28. 97 28. 96 28. 98 28. 99 29. 02 29. 09	29. 42 29. 39 29. 40 29. 31 29. 32 29. 41 29. 25 29. 42 29. 61 29. 61 29. 46	28. 29 28. 19 28. 57 28. 42 28. 25 28. 69 28. 62 28. 63 28. 51 28. 47 28. 18	2. 0 -4. 2 25. 8 34. 2 58. 3 60. 8 73. 8 67. 7 59. 3 40. 2 26. 9 20. 6 38. 8	7. 0 3. 6 31. 7 43. 9 69. 8 72. 1 88. 3 80. 6 72. 9 51. 5 34. 2 25. 2 48. 4	6. 4 3. 2 32. 1 44. 6 70. 1 72. 1 88. 2 79. 0 49. 4 32. 3 24. 1 47. 6	11. 4 7. 6 36. 6 48. 1 73. 8 76. 5 92. 5 84. 6 76. 8 56. 2 37. 9 30. 6	-3. 7 -7. 7 23. 2 31. 5 54. 5 56. 3 70. 2 64. 8 56. 6 36. 6 22. 3 14. 5	3. 8 .0 29. 9 39. 8 64. 2 66. 4 81. 4 74. 7 66. 7 46. 4 30. 1 22. 6 43. 8	35 41 56 73 93 95 108 103 95 75 57 51	-34 -26 -6 6 33 46 55 53 39 17 10 -14 -34	26 46 49 57 56 51 32 22 17	3 -2 23 27 47 48 56 55 50 33 22 19	4 0 25 29 47 49 55 54 51 32 22 19	58 68 75 72 79 86 76	81 77 69 53 47 45 34 45 47 50 61 76	86 84 74 55 47 48 34 47 53 65 79 60	0. 054 . 037 . 119 . 150 . 325 . 355 . 477 . 463 . 400 . 195 . 118 . 107	0. 058 . 044 . 128 . 160 . 340 . 347 . 450 . 449 . 398 . 201 . 124 . 116	. 048 . 138 . 172 . 339 . 368 . 451 . 436 . 412 . 199 . 122 . 113	0. 77 1. 55 2. 66 1. 48 2. 25 2. 29 .11 3. 48 .66 .66 1. 78 18. 47	. 81 . 36 1. 26 1. 17 . 04 1. 61 . 21 . 48 . 36	19. 7 16. 5 2. 6 . 0 . 0 . 0 . 0 . 0 . 1 1. 7 11. 2	6. 1 4. 8 6. 9 6. 5 5. 6 5. 5 2. 3 5. 0 4. 5 6. 4 5. 5	8. 2 6. 6 5. 8 6. 5 3. 4 5. 9 4. 3 6. 1 6. 6	5. 9 6. 1 7. 5 6. 2 5. 6 5. 5 3. 0 5. 8 4. 9 5. 0 5. 6 5. 6	6. 2 6. 0 7. 8 6. 6 5. 7 6. 1 3. 4 5. 5 4. 4 5. 9 6. 0 7. 1
											OUL.; :																
MayJune		26. 91 26. 90 26. 82	25. 96 26. 02 26. 18 26. 23 26. 28 26. 35 26. 44 26. 21 26. 28 26. 47 26. 23	24. 1 8. 9 29. 5 38. 4 48. 6 53. 8 59. 0 56. 5 44. 9 38. 5 24. 3 28. 7 37. 9	54. 7 68. 4 71. 1		33. 3 19. 8 43. 9 60. 6 74. 9 91. 2 86. 4 70. 9 62. 9 39. 7 38. 7 58. 3	36. 7 46. 6 51. 5 57. 7 54. 5 43. 1 35. 6 21. 6 24. 2	26. 8 12. 2 35. 4 48. 6 60. 8 64. 2 74. 4 70. 4 57. 0 49. 2 30. 6 31. 4	44 50 66 88 95 97 105 95 89 77 58 56	-7 -25 5 2 34 41 48 41 30 23 9 3 -25	20 6 23 31 40 46 47 43 38 32 22 22 22	21 7 23 31 39 45 46 43 37 33 24 24		76 66 61 76 78 88 78	72   -67   -50   -42   -37   -43   -28   -40   -44   -65   -65   -48   -		0, 116 . 072 . 126 . 182 . 249 . 317 . 331 . 284 . 229 . 182 . 115 . 124 . 194	. 071 . 124 . 176 . 242		1. 23 2. 63 . 54 . 51 1. 54 2. 05 . 39 1. 22 . 47 . 13 . 68 11. 89	. 25 . 16 . 55 . 77 . 31 . 21 . 55 . 17 . 09 . 36	43. 5 2. 8 1. 1 T . 0 . 0 . 0 . 0 . 2 1. 5 8. 8	7.3 8.5 8.1 6.4 5.9 6.7 2.0 3.2 4.1 4.0 3.8 8.7 5.7	7. 9 7. 9 8. 3 6. 2 5. 8 6. 3 3. 0 3. 7 4. 7 3. 5 5. 1 8. 6 5. 9		8. 2 8. 1 8. 3 6. 5 5. 9 6. 5 3. 2 3. 9 4. 2 3. 7 5. 4 8. 6
									$[\phi = 3]$		BILE 'N.;				7.]												
January February March April May June July August September October November December	30. 01 29. 90 30. 01 29. 95 29. 86 29. 93 29. 94 29. 93 29. 98 30. 11 30. 09	30. 39 : 30. 20 : 30. 29 : 30. 19 : 30. 11 : 30. 15 : 30. 10 : 30. 07 : 30. 25 : 50. 40 : 30. 43	29. 52 29. 62 29. 53 29. 61 29. 61 29. 66 29. 71 29. 75 29. 75 29. 83 29. 73	44. 0 56. 3 60. 6 69. 2 77. 4 78. 5 77. 4 74. 6 62. 7 49. 9 48. 5	56. 1 68. 9 70. 5 80. 1 87. 5 87. 4 86. 6 77. 9 63. 3 58. 6	53. 3 64. 6 67. 1 76. 1 83. 9 81. 7 83. 1 81. 1 73. 2 60. 4 55. 6	74. 5 83. 1 91. 9 90. 6 90. 5 89. 4 80. 6 67. 1 62. 2	41. 8 54. 0 56. 8 66. 3 73. 4 74. 0 73. 8 72. 9 61. 2 48. 2 46. 3	51. 4 51. 2 63. 0 65. 6 74. 7 82. 6 82. 3 82. 2 70. 9 57. 6 54. 2	77 77 79 86 91 102 100 95 93 88 82 75	32	40 51 54 64 70 73 73 70 58 45	69 58 45 47	44 52 56 64 70 72 73 72 61 46 48	85 84 82 73 79 83 86 85 86 82 88	60 56 58 58 48 60 58 57 53 54 69	72 68 70 69 63 74 73 74 68 62 79	. 266 . 408 . 458 . 593 . 750 . 806 . 813 . 732 . 507 . 320 . 322	. 293 . 413 . 440 . 578 . 661 . 779 . 749 . 717 . 515 . 331 . 351	. 426 . 471 . 611 . 724 . 787 . 820 . 781 . 569 . 344	4. 03 1. 52 5. 94 3. 77 1. 75 6. 13 6. 29 2. 18 . 42 2. 86 4. 03	7. 12 1. 26 . 43 2. 15 1. 68 1. 18 1. 57 2. 89 . 94 . 33 1. 13 . 92 7. 12	.0	5. 4 4. 3 1. 8 6. 4 3. 6 3. 8 3. 4 5. 6 7. 2	4. 6 6. 2 3. 0 6. 3 5. 3 5. 8 3. 9 5. 1 7. 1	5.3 6.3 2.9 7.4 4.8 3.8 3.1 4.1 5.9	5. 4 5. 9 6. 0 4. 8 5. 5 2. 8 6. 6 4. 7 5. 3 4. 1 5. 0 7. 0

Notes at end of table.

MILWAUKEE, WIS.

							[H	=619	ft.;		681 (:					39 ft.;	ha=	221	ſt.]										
	-					1	Wind	i 								1		1		1	Num	ber	of da	ıys					
		Ву	self-re	egister		Nı	ım be	r of	wind	s, 8 a	ı. m.	and	8 p.	m.					ecip- lion		now		F	og	m	axi- um np.	ure 32°		lec- icity
Month	Average hourly ve-	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	T or more	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperati	Thunderstorm	Aurora
January February March April May June July August September October Nevember December	14. 3 13. 0 12. 7 11. 6 11. 6 10. 1 12. 0 11. 9 12. 9 14. 9	W. W. N. E. E. SW. W.	Mi. 35 46 399 411 35 35 28 47 34 36 41 47	SE. SW. N. W. NE. N. W. SW. SW.	2 6 2 2 2 2 2 0 2 1 2 4 3 28	8 12 15 10 5	3 2 4 4 5 8 7 9 3 0 5 0 5	4 4 6 6 5 8 11 10 7 4 3 4 72	3 3 8 6 7 4 6 6 6 6 6 1 1 7 58	4 2 5 8 7 8 8 9 10 7 3 9	7 3 5 9 13 3 2 8 10 11 12 15	20 19 18 7 14 10 9 14 18 15 13	14 15 9 10 4 2 2 2 8 6 11 9	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8 6 6 3 8 10 13 10 10 8 8 8 8	7 9 9 10 14 8 15 13 9 4 6 5	16 14 16 17 9 12 3 8 11 19 16 18	14 11 9 13 7 8 5 14 15 10 3 7	9 5 4 1 13 14 8 2 6	19 11 8 0 0 0 0 0 0 3 9	14 11 4 5 0 0 0 0 0 1 2 2 2	0 0 0 0 0 1 0 0 0 1 0 0 0 0 1 0 0 0 0 0	2	0 0 0 1 4 2 0 1 0 3 2 2 2	21 23 4 4 0 0 0 0 0 0 0 4 3 59	0 0 0 0 0 1 9 6 1 0 0	277 177 133 0 0 0 0 0 0 4 21 26	2 1 7 6 4 11 7 5 0	0 0 0 3 0 0 0 0 0 0 0 0
							[H=	839 ft	; H <sub>1</sub>		NNE 9 ft.;						1a=2	08 ft	.]										
June July August September October November December	10. 9 11. 9 10. 5 10. 2 9. 5 9. 8 10. 1 11. 8 12. 2	NW. W. W. NW. N. S. N. S. W. NW. W.	34 28 33 36 34 32 32 41 30 34 38 36 41	NW. W. NW. W. NW. SE. N. NW. NW.	1 0 3 2 2 2 1 1 1 0 2 3 3 1	5 10 7 13 9 21 15 14 10 11 6 5	3 1 3 4 3 3 1 6 3 0 3 2	3 4 2 8 4 5 8 5 5 2 5 2 5 1	7 5 8 6 11 7 10 8 9 3 4 13	1 2 7 5 7 12 12 15 18 16 5 11	4 3 4 7 5 10 6 5 4 7	19 23 13 6 10 4 4 5 6 8 16 17	20 10 18 14 11 3 2 2 7 14 19 5	0 0 0 0 0 0 0 0 0 0 0 0	11 8 1 4 8 6 19 10 12 9 7 7	4 9 11 13 11 12 8 11 10 6 10 6	16 12 19 13 12 12 4 10 8 16 13 18	13 10 11 11 11 8 10 6 7 9 4 3 10	6 5 9 7 6 7 1 5 5 3 3 9		13 10 8 3 0 0 0 0 0 1 2 7	0 0 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	18 8 14 9 8 5 7 9 10 17 110	2 0 0 0 1 0 0 0 0 1 1 0 0 2 7	29 27 10 6 0 0 0 0 0 1 7 15 95	0 0 0 0 1 3 17 11 3 0 0	31 29 27 12 0 0 0 0 0 10 27 29 165	0 0 2 4 10 5 3 5 6 2 0 0	0 1 0 2 0 3 0 0 2 1 0 0
						[1	H=3,	200 f	t.; H		1880 263 fi					7 ft.;	ha=	91 ft	.]										
January February March April May June July September October November December Year	5. 3 7. 4	SE. W. SW. NW. SE. SE. SE. SE. SE. SE. SE.	38 35 31 30 29	SE. E. W. SE. S. E. E. E. E. S.	0 0 2 1 0 0 0 3 1 0 0 0 7	1 1 2 3 3 0 1 0 2 0 1 1 1 1 1	0 1 2 1 0 2 0 0 1 0 0 0 7	8 4 4 8 7 9 5 11 7 8 8 7	12 6 8 7 8 5 19 13 14 15 13 6	3 5 3 4 6 5 2 4 2 5 4 4 4 4 4 4 4 4 7	2 3 2 2 2 2 2 2 2 0 1 1 0 3 2 2 2	5 7 5 3 4 5 0 2 1 0 0 5 3 7	0 2 5 2 0 1 0 1 0 1 0 1	0 0 0 0 1 1 2 0 2 1 4 5	4 2 1 7 9 6 18 14 14 16 12 0	2 7 6 7 9 7 9 12 8 8 5 7	25 20 24 16 13 17 4 5 8 7 13 24	12 17 12 9 12 12 5 5 7 6 5 12		22 20 16 4 1 0 0 0 0 3 6 18	10 16 8 3 0 0 0 0 0 2 4 9	0 0 0 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0	5 1 0 0 1 0 0 0 0 0 0 0 4 2	2 0 0 0 0 0 0 0 0 0 0 0 4 2	12 21 2 1 0 0 0 0 0 0 8 7	0 0 0 5 5 16 10 0 0 0	27 25 24 5 0 0 0 0 1 9 29 24	0 0 0 1 7 6 7 7 3 0 0 0 31	0 0 0 0 0 0 0 0 0 0 0
							[H=	10 ft	.; H		MOE ft.; h				78 ft	.; h <sub>a</sub> =	=161	ft.]											
February March April May June July Auvust September October November 1 December	8. 9 8. 5 8. 8 7. 3 7. 5 8. 0 6. 1 6. 2 8. 2 0. 1 0. 3	N. N. S. S. S. S. S. N. N. N. N. N. N.	29 36 26 19 26 32 27 17 24 27 1 26 1	NW. NW. NW. S. NE. SE. N. N. N. N.	0 0 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0	17 22 6 12 16 11 7 15 7 21 23 20	9 5 4 4 13 5 7 13 11 3 9	3 5 2 4 12 1 1 3 6 5 3 6	7 5 10 5 3 3 1 6 1 7 4 7	10 9 17 18 11 22 21 19 10 3 3 7	4 4 4 4 1 8 14 3 11 2 2 1	3	8 7 7 9 1 3 5 3 6 9 15 9	0 1 2 1 1 1 0 0 0 0 0 0 0 0 7 1	10 8 8 11 7 19 1 9 7 14 13 5	8 9 9 17 11 122 16 19 10 6 9	13 12 14 10 7 0 8 6 4 7 11 17	13 10 11 7 4 16 12 8 2 6 10	12 10 7 9 7 3 14 12 7 2 5 9	1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7 7 3 4 4 1 1 1 1 1 4 0 6	3 2 0 2 2 2 0 0 0 0 0 1 0 2 1 1 1 1 1 1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 1 27 19 20 12 0 0 0	8 4 0 0 0 0 0 0 0 0 0 0 1 1	6 3 2 7 11 5 16 9 8 1 2 2 7 7	0 0 0 0 0 0 0 0 0 0 0

#### MODENA, UTAH

		_							[φ=	=37°4	8′ N.	; λ=	:113	54′	W.]	}											
	P	ressu	re			Т	'empe	rature	9										1	Moist	ure						-madeled
		Extr	emes			M	ean			Exti	emes		Dev			elati mid		Vapo	or pre	ssure	Pre	cipita	tion		Clou	dines	38
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 р. т.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
February March April May June July August September October November December	24. 53 24. 59 24. 58 24. 58 24. 65 24. 66 24. 66 24. 79	24, 90 24, 94 24, 77 24, 75 24, 81 24, 83 24, 85 24, 86 25, 08 24, 94	24. 12 23. 99 24. 21 24. 35 24. 34 24. 44 24. 49 24. 21 24. 36 24. 30 24. 10	28. 2 28. 0 34. 6 42. 3 . 51. 9 58. 1 57. 0 45. 1 37. 3 23. 3 22. 5	72. 8 59. 3 47. 9 38. 4	50. 9 63. 3 71. 6 81. 8 79. 9 81. 5 73. 8 57. 9 43. 4 34. 2	85. 5 86. 8 85. 3 77. 2 63. 5 52. 5 42. 1	23. 8 25. 6 32. 5 39. 5 49. 4 56. 8 55. 0 42. 0 34. 2 20. 7 17. 5	36. 6- 29. 8	58 57 68 82 85 98 95 91 83 81 67 55	5 5 16 18 29 36 45 43 29 25 15 -7	22 22 31 46	25 20 22 24 33 48 48 32 33 23	0 21 25 19 19 21 30 47 45 28 32 22 24 28	% 79 81 72 60 44 47 67 71 53 73 84 83 68	% 48 55 34 23 19 19 34 36 24 42 38 60 36	% 53 58 32 21 17 17 37 32 19 44 43 67 37	In. 0. 091 . 129 . 108 . 118 . 117 . 180 . 329 . 337 . 169 . 163 . 102 . 101 . 162	. 136 . 106 . 116 . 128 . 190 . 344 . 352 . 191 . 191 . 122 . 132	. 137 . 104 . 105 . 115 . 172 . 335 . 318 . 159 . 184 . 118 . 127	In. 0. 06 1. 65 . 67 . 08 . 10 . 12 2. 21 2. 13 . 28 2. 73 . 05 1. 36 11. 44	. 53 . 23 . 06 . 07 . 09 . 57 1. 19 . 21 . 88 . 05 . 47	6.3 T .0 .0 .0 .0 T .1	4.8 3.8 3.4 2.6 3.3 3.3 2.6 2.5 5 3.5	5. 5 4. 3 3. 3 2. 9 4. 0 3. 8 1. 7 4. 6 1. 4 4. 5	4. 9 4. 9 3. 2 4. 2 6. 4 4. 0 1. 4 4. 7 2. 1 4. 9	
											ЭОМ З' N.;		,														_
February	29. 71 29. 83 29. 79 29. 69 29. 75 29. 79 29. 78 29. 83 29. 94 29. 93	30. 21 29. 97 30. 13 30. 11 29. 99 29. 96 29. 95 29. 97 30. 06 30. 24 30. 31	29, 32 29, 40 29, 31 29, 45 29, 53 29, 55 29, 57 29, 57 29, 54 29, 53 29, 53	42. 2 41. 6 53. 4 57. 5 68. 8 75. 1 76. 3 76. 4 72. 9 61. 8 47. 0 46. 3	50. 2 51. 6 67. 1 69. 2 81. 1 89. 1 86. 6 87. 2 84. 9 74. 5 60. 4 55. 0	49. 5 51. 8 65. 4 67. 4 78. 2 85. 4 82. 0 83. 7 80. 2 71. 1 58. 1 54. 2	56. 2 57. 9 72. 6 74. 3 85. 4 93. 4 92. 1 91. 3 88. 7 78. 4 65. 6 59. 8 76. 3	38. 3 39. 3 51. 3 54. 2 65. 5 71. 1 72. 6 72. 6 70. 5 59. 6 45. 4 44. 3	47. 2 48. 6 62. 0 64. 2 75. 4 82. 2 82. 4 82. 0 79. 6 69. 0 55. 5 52. 0 66. 7	77 76 87 89 93 99 102 96 94 88 82 76	19 21 38 36 60 60 62 64 63 46 27 31	37 36 46 50 60 68 72 72 68 58 41 43	37 35 44 48 57 63 70 70 68 57 . 40 44 53	43 49 58 64 70 71 69 58 41 44	73 77 86 85 86 87 80 88	45 43 60 57 58 56 50 70	58 49 55 52 52 70 66 69 64 56 72	0. 265 . 231 . 237 . 395 . 520 . 677 . 771 . 773 . 698 . 498 . 275 . 293 . 478	0. 260 . 230 . 330 . 370 . 473 . 582 . 740 . 726 . 686 . 494 . 278 . 311 . 457	. 240 . 317 . 381 . 492 . 609 . 736 . 758 . 706 . 503 . 286 . 312	12. 14 7. 29 2. 08 6. 16 2. 22 4. 14 9. 16 3. 43 1. 86 2. 45 2. 10 6. 63 59. 66	2. 50 1. 05 1. 97 1. 59 1. 49 4. 55 1. 01 . 57 1. 84 . 85 1. 37	0.3 .0 .0 .0 .0 .0 .0 .0	7. 7 5. 7 5. 5 4. 7 2. 8 6. 5 3. 7 4. 3 4. 3 5. 3 6. 9	5. 1 6. 6 5. 8 5. 3 4. 6 2. 4 5. 9 4. 6 5. 2 4. 7 5. 0 7. 3	4. 8 5. 7 6. 0 4. 8 5. 8 2. 9 7. 1 4. 2 3. 4 4. 0 4. 4 7. 2 5. 0	5. 4 7. 1 5. 6 5. 4 5. 2 2. 8 6. 5 4. 3 4. 3 4. 6 5. 0 7. 6
						_					HEA																
March	28, 83 29, 05 28, 93 28, 90 28, 88 28, 95 28, 94 29, 00 29, 10	29. 41 29. 44 29. 47 29. 34 29. 33 29. 33 29. 31 29. 38 29. 63 29. 63 29. 64	28. 44 28. 16 28. 47 28. 28 28. 35 28. 57 28. 65 29. 47 28. 39 28. 38	-13. 8 19. 8 29. 3 53. 8 58. 4 71. 3 62. 6 52. 8 33. 3 21. 9 13. 3	-6. 5 28. 0 40. 2 68. 5 72. 5 88. 6 77. 7 69. 8 48. 2 28. 8 17. 3	27. 4 40. 9 71. 4 74. 4 90. 6 78. 8 67. 1 46. 8 26. 8 16. 3		-18. 2 16. 1 25. 9 49. 1 53. 5 66. 4 59. 8 49. 4 28. 6 16. 4 5. 4	-6. 2 -9. 8 24. 0 35. 9 62. 2 65. 6 80. 2 71. 6 62. 2 41. 6 25. 2 14. 2 38. 9	25 30 48 72 91 99 114 98 101 84 54 42	-13 $2$ $35$	-9 -14 18 24 45 49 57 53 46 26 18 11	22 26 45 48 56 54 45 28 22 13	-7 23 28 46 48 55 53 46 28 22 13	97 90 81 74 72 63 72 79 76 85 88	89 76 59 46 46 35 46 44 48 75 83	96 83 61 42 42 32 44 50 82 88	. 023 . 103 . 138 . 315 . 365 . 481 . 404 . 339 . 152 . 101 . 077	. 030 . 124 . 164 . 313 . 363 . 457 . 430 . 336 . 165 . 119 . 086	0. 036 . 032 . 129 . 160 . 325 . 354 . 444 . 412 . 338 . 164 . 121 . 089	0. 39 1. 38 1. 31 . 74 1. 22 . 48 . 42 . 96 . 26 . 36 . 58 . 77 8. 87	. 79 . 46 . 65 . 26 . 20 . 59 . 11 . 18 . 26 . 32	18. 0 13. 1 1. 1 . 0 . 0 . 0 . 0 . 0 . 0 1. 9 6. 6	5. 9 6. 7 3. 0 6. 6 5. 4 5. 7 6. 4 7. 2	7. 0 6. 1 8. 3 6. 2 5. 5 6. 3 2. 8 6. 5 6. 0 7. 1 7. 2 6. 2	7. 1 5. 5	6. 3 6. 1 6. 9 7. 4
											OKE N.;																
February March April May June July	29, 92 3 29, 98 3 30, 00 3 29, 90 3 29, 86 3 30, 00 3 30, 08 3 30, 07 3 30, 00 3 30, 21 3	0. 46 0. 39 0. 52 0. 58 0. 28 0. 29 0. 30 0. 46 0. 57 0. 60 0. 70 2	29. 34 29. 12 29. 31 29. 43 29. 43 29. 52 29. 67 29. 26 29. 26 29. 32 29. 45	42. 3 44. 2 55. 8 62. 1 66. 9 67. 3 62. 8 55. 2 42. 6 38. 2	45. 7 41. 5	27. 5 41. 2 43. 7 52. 5 59. 8 64. 4 65. 3 60. 8 53. 3 42. 7 39. 7	49. 8 61. 2 68. 0 73. 6 73. 4 68. 2 60. 8 50. 1 45. 5	20. 8 37. 7 39. 4 48. 7 56. 8 61. 1 61. 7 57. 4 49. 2 36. 7 34. 0	31. 4 26. 8 43. 2 44. 6 55. 0 62. 4 67. 4 67. 4 67. 6 62. 8 55. 0 43. 4 39. 8	51 49 60 64 76 76 83 82 78 71 65 55	52 57 55 47 32 18 17	57 60 62 56 48 35	37 36 46 58 59 63 55 48 36 34	22 36 37 46 57 61 62 56 47 34	76 82 70 72 85 80 84 80 77 76 83	67 72 66 66 76 69 75 73 70 70	771 833 78 81 91 88 88 88 81 71	. 229 . 209 . 324 . 469 . 526 . 564 . 467 . 355 . 228 . 205	. 120 . 231 . 222 . 328 . 480 . 511 . 576 . 449 . 364 . 236 . 209	. 123 . 224 . 228 . 322 . 467 . 536 . 560 . 464 . 347 . 220	4. 92 2. 71 4. 27 2. 21 . 87 3. 59 1. 58 2. 84 4. 15 4. 28 1. 81 7. 04	1. 94 1. 31 1. 09 . 45 . 68 1. 82 1. 04 1. 58 3. 19 2. 41 . 53 1. 58 3. 19	. 0 . 2 T	4. 6 7. 0 5. 7 4. 3 5. 5 5. 1 6. 8 5. 9 6. 2 6. 2	5. 6 5. 7 5. 6 5. 6 3. 4 4. 6 5. 2 4. 9 6. 2 4. 3 6. 6 7. 0 5. 4	3. 1 5. 1 5. 3 4. 3 5. 4 3. 9 5. 5 5. 6	6, 6 6, 1 6, 0 5, 5 4, 5 6, 0 5, 7 5, 7 6, 7 5, 8 6, 4 7, 7

#### MODENA, UTAH

							[H=	5,460	ft.;	H <sub>b</sub> =	5,473	ft.; ]	h <sub>t</sub> =	10 ft.	; h <sub>r</sub> =	=3 ft.	; ha=	=46 f	t.]										
						,	Wind	1												ľ	Jum	ber	of da	ys					
		Bys	elf-re	gister		Nu	ımbe	rof	wind	s, 8 a	. m.	and	8 p.	m.				Pre itat	cip- ion	Sı	10W		F	og		axi- im np.	ure 32°		ec-
Month	Average hourly ve-	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	T or more	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperature or below	Thunderstorm	Aurora
January February March March April May June July August September October November December	Mi. 9. 6 11. 4 10. 1 10. 3 11. 3 11. 3 9. 4 9. 3 9. 9 8. 5 7. 6 8. 7 9. 8	SW. SW. W. SW. SW. SW. SW. SW. SW.	Mi. 32 36 38 38 41 35 35 35 25 26 29 41	SW. SW. S. S. SW. W. NW. SW. E. NW. W.	1 3 2 2 8 8 2 1 1 3 0 0 0 0	4 4 3 2 4 0 2	9 1 6 1 7 1 5 3 4 11 13 5	5 2 10 3 5 3 5 4 12 16 8 7	0 1 4 1 2 1 4 3 2 1 2 2 2 2	1 2 1 7 9 8 1 7 10 4 0 3 3 53	16 24 16 14 11 23 17 17 17 13 8 10 25	23 22 14 23 17 20 21 24 15 19 19 14	3 6 6 6 8 2 5 4 2 1 1 1 1	0 0 1 1 1 0 0 0 0 0 0 0 0 0 1 1 1 3 0 0 0 1 1 1 3 1 3	15 9 12 14 16 17 9 17 24 17 26 14	8 6 10 8 11 8 19 11 5 4 3 6	8 14 9 8 4 5 3 3 1 10 1 11 17	2 10 5 2 2 16 10 2 9 1 8	5 1 1 1 10 7 2 8 1	6 10 6 1 1 0 0 0 0 1 2 9	1 6 5 1 0 0 0 0 0 1 1 1 8	0 0 0 0 1 0 0 2 0 0 1 0 0 4	000000000000000000000000000000000000000	0 0 0 0 0 0 0 0 0	2 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 13 18 3 0 0 0 0 0 3 3 3 3	31 23 30 10 4 0 0 0 1 11 30 31	0 1 0 2 0 5 20 15 4 3 0 1	0 0 0 0 0 0 0 0 0 0
							[H=	= 201	rt · Ti					Y, 1			1	O5 ft	1							'			
January February March April May June July August September October November December	8. 0 7. 6 8. 4 7. 7 6. 5 6. 6 6. 9 5. 6 5. 9 6. 6 7. 2 7. 8	N. SE. SW. E. N. E. N. E. N.	30 28 31 20 19 32 33 30 19 22 21	W. N. NW. SW. NE. NE. NE. NE. NE. NE. NE. NW. SW.	0 0 0 0 1 1 1 0 0 0 0 0	15 17 8 14 9 6 4 6 4 11 14 13	5 6 6 6 6 6 9 3 9 11 13 8 11	10 9 5 5 18 8 0 16 16 19 8 16	8 7 12 7 10 3 4 7 9 2 4 6	9 7 9 10 3 9 12 6 4 2 1 5	3 0 5 5 3 15 20 5 7 2 9 1	7 5 8 6 8 6 11 5 3 4 10 5	4 6 7 6 4 4 7 7 7 4 9 4 5 6 6 7	1 1 1 2 1 1 0 1 1 2 0 2 0 2 0	12 8 10 12 10 18 5 14 13 14 14 16	6 1 10 2 11 11 13 12 14 8 4 4	13 20 11 16 10 1 13 5 3 9 12 21	14 16 7 11 5 15 15 8 9 6 6 15	13 13 6 9 5 5 13 8 8 4 5 14	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 10 3 2 4 1 3 4 3 5 5 5 13	1 0 0 0 0 3 0 0 1 1 1 0	1 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 2 24 22 21 11 0 0 0 80	11 6 0 0 0 0 0 0 0 0 0 0 0 0 3 2 22	5 3 5 6 5 8 15 9 9 2 0 2	0 0 0 0 0 0 0 0 0 0
						[]	H=9	04 ft.	.; Нь					MII		t.; h	= 58	ft.]				,		,					
April May June July August September October		N. N. N. N. S. S. S. N. S. S. N. S. S. S. S. S. S. S. S. S. S. S. S. S.		NW. NW. NW. NW. SE. S. SW. SW. NW. NW.	0 0 0 0 0 0 0 0 0 0 1 1	17 18 8 22 13 10 5 13 13 16 19 10	3 0 5 4 6 9 8 11 2 2 4 2	1 3 3 6 2 1 4 7 4 4 2 2 3 9	0 0 2 0 9 5 14 9 10 5 1	12 6 12 17 15 23 18 11 15 14 15 19 177	5 4 6 1 7 1 3 4 5 4 3	3 10 8 4 6 3 3 2 5 6 6	20 14 18 5 4 7 7 6 7 10 9	1 3 0 1 0 1 0 0 0 0 0 0 0 0 1	5 9 2 7 10 8 17 3 5 7 4 4	12 5 8 14 13 12 12 13 12 10 10 8	14 15 21 9 8 10 2 15 13 14 16 19	11 11 10 5 6 8 4 6 6 6 4 6 11	3 8 5 4 5 4 2 3 3 4 4 5 5	23 17 19 5 0 0 0 0 4 12 14 94	11 9 7 1 0 0 0 0 0 2 5 9	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 1 4 2 0 1 1 1 3 2 1 8	1 1 0 0 0 0 1 0 1 1 1 1 3	31 29 14 7 0 0 0 0 0 3 12 20	0 0 0 0 1 3 21 10 0 0 0 36	31 29 30 20 0 0 0 0 1 21 29 31	0 0 0 0 4 5 5 7 7 0 0 0	0 0 0 5 0 3 0 0 0 0 2 0 0
							[H	=35 1	ft.; H					M A		.; ha	=90	ft.]											
January	14. 8 16. 1 16. 4 15. 8 14. 9 12. 1 13. 4 14. 0 14. 4 15. 8	W. W. S.	49 41 43 42 52 35 34 45 40 46 41	SE. E. SW. S. SW. NE. SW. N. S. SW. N. SE. SE. SW. E.	11 4 5 7 5 3 2 1 5 5 5 7	7 7 5 7 6 4 6 5 8 7 5 4	1 3 2 4 5 15 8 10 10 3 3 7	3 5 7 2 0 5 7 10 8 4 1 9	3 6 12 6 3 3 4 3 2 8 3 4	5 3 13 8 19 10 7 7 11 12 9 7	6 2 9 17 16 17 18 19 16 11 13 7	21 9 14 8 4 8 7 2 11 12 13	12 10 5 2 5 2 4 1 3 6 14 11	0 1 0 0 0 0 0 0 0 0 0 0	5 9 9 9 14 7 9 10 5 10 7 7	8 6 9 10 8 11 11 9 8 7 7 7 3	18 14 13 11 9 12 11 12 17 14 16 21	16 11 13 12 7 10 5 10 8 12 12 12 12	10 9 11 9 4 6 4 8 6 8 10 12	7 9 1 0 0 0 0 0 0 0 4 2	4 6 0 0 0 0 0 0 0 0 0 0 1 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8 6 14 9 12 16 14 17 14 9 5 13	6 3 7 5 9 12 8 6 11 8 0 8	8 16 0 0 0 0 0 0 0 0 0 0 0 1 1 1	0 0 0 0 0 0 0 0 0 0	23 25 7 0 0 0 0 0 0 0 2 11 9	0 0 2 1 2 1 7 5 2 0 1 1	0 0 0 0 0 0 0 0 0 0 0 0

 $\phi = 36^{\circ}10' \text{ N.}; \lambda = 86^{\circ}47' \text{ W.}$ 

									[φ=	=36°1	0′ N.;	λ=	86°4	17' V	V.]												
	F	ressu	re			п	`empe	ratur	е										]	M oist	ure						
		Extr	remes			M	ean			Ext	remes		Dev poin			elati mid		Vapo	or pre	ssure	Pre	cipita	tion		Clou	dine	SS
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, lecal time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
January February March April May June July August September October November December	29. 53 29. 35 29. 50 29. 50 29. 35 29. 40 29. 46 29. 46 29. 53 29. 62 29. 62	29, 85 29, 66 29, 90 29, 85 29, 60 29, 65 29, 66 29, 68 29, 81 29, 95 29, 96	28. 91 28. 89 29. 20 29. 07 29. 21 29. 23 29. 17 29. 20 29. 27 29. 15	30. 5 46. 1 49. 2 64. 3 72. 3 75. 4 74. 7 68. 8 55. 8 40. 3 38. 2	38. 3 58. 7 60. 5 78. 5 87. 1 85. 6 87. 9 81. 7 66. 6 50. 6 48. 0	39. 2 58. 8 59. 8 77. 7 86. 9 84. 4 85. 9 79. 3 63. 9 48. 7 47. 0	55. 8 52. 3	26. 5 43. 4 45. 6 59. 8 67. 8 71. 7 72. 0 66. 1 51. 5 36. 1 35. 2	35. 7 53. 8 56. 2 71. 3 79. 8 81. 2 81. 8 76. 0 61. 0 46. 0	91 101 101 102 94 81	-3 -1 32 27 48 53 64 58 53 36 20 24 -3	57 69 68 64 50 34 34	50 55 69 66 64 49 36 36	29 27 38 40 50 53 69 66 63 50 36 36 46	69 60 80 79 84 88 79 84	47	% 70 63 49 53 40 35 62 54 59 62 63 69 57	In. 0, 145 -155 -234 -260 -416 -474 -710 -679 -598 -387 -209 -373	In. 0. 156     . 160     . 244     . 248     . 370     . 447     . 727     . 643     . 601     . 372     . 229     . 232     . 369	. 168 . 249 . 272 . 375 . 423 . 724 . 658 . 583 . 376 . 224 . 234	1. 52 8. 40 3. 70 1. 41 . 21 8. 33 . 59 1. 86 3. 38 3. 52	. 39 2. 83 1. 79 . 89 . 15 2. 82 . 29 . 85 1. 49 2. 81 1. 34	T .1 .0 .0 .0 .0 .0 .0 .0 .1 .3 T	5. 0 5. 6 5. 0 6. <b>9</b>	5. 6 5. 1 5. 9 3. 8 3. 6 5. 2 5. 0 6. 7 6. 5 5. 0 6. 6	6. 1 5. 0 5. 8 4. 4 4. 0 6. 8 4. 5 4. 7 4. 7 3. 3 5. 4	6. 5 5. 9 5. 5 5. 9 4. 0 3. 2 5. 8 4. 8 5. 9 6. 8
											HAVI						-										
February March	29. 81 29. 91 29. 92 29. 81 29. 77 29. 90 29. 99 29. 98 29. 93 30. 13	30, 37, 30, 32, 30, 43, 30, 53, 30, 19, 30, 23, 30, 36, 30, 49, 30, 57, 30, 63	29. 24 29. 00 29. 31 29. 43 29. 36 29. 44 29. 61 29. 51 29. 09 29. 24 29. 33	24. 6 19. 6 39. 9 43. 0 57. 5 65. 6 70. 1 68. 8 61. 9 51. 1 37. 4 33. 6	30. 7 26. 7 47. 0 49. 1 65. 4 70. 8 76. 7 76. 2 69. 1 60. 0 44. 1 38. 6 54. 5	29. 3 25. 7 43. 4 46. 6 60. 7 68. 0 73. 2 72. 5 65. 6 55. 2 41. 3 37. 0 51. 5	34. 6 30. 8 50. 9 52. 8 70. 2 74. 5 81. 1 80. 2 71. 9 62. 4 48. 7 43. 4 58. 5	21. 9 16. 6 35. 9 39. 0 50. 8 59. 3 64. 0 63. 8 57. 7 46. 1 32. 7 28. 7 43. 0	28. 2 23. 7 43. 4 45. 9 60. 5 66. 9 72. 6 72. 0 64. 8 54. 2 40. 7 36. 0	53 48 65 78 90 88 94 93 88 75 71 58	1 14 30 40 52 57 56 41 25 11 1	46 55 59 61 54 44 28 26	14 35 34 49	18 14 35 35 48 57 61 62 57 45 29 28	72 70 78 72 68 71 68 77 77 77 69 74	58 58 65 59 61 57 62 65 59 56 63	59 73 67 65 70 68 72 75 70 62 69	. 205 . 206 . 326 . 448 . 509 . 545 . 441 . 318 . 175 . 156	0. 112 . 092 . 220 . 210 . 370 . 450 . 518 . 561 . 465 . 327 . 180 . 156 . 305	. 093 . 216 . 216 . 346 . 473 . 552 . 576 . 484 . 334 . 184 . 165	3. 05 6. 43 3. 46 1. 58 13. 96 1. 45 2. 21 5. 40 5. 10 1. 09 8. 34	. 87 2. 23 1. 71 . 82 7. 50 . 63 . 80 4. 73 2. 39 . 52	9.3 3.3 T .0 .0 .0 .0 .0 .0 .0	5. 5 5. 9 6. 4 6. 3 4. 2 6. 4 5. 6 5. 7 6. 2 5. 6 6. 9 5. 9	5. 6 5. 4 7. 1 4. 3 6. 1 4. 8 5. 5 7. 0 6. 1	5. 2 4. 1 6. 7 6. 4 4. 1 5. 8 5. 5 6. 0 6. 6 4. 7 5. 8 5. 5	5. 6 5. 7 6. 4 6. 2 5. 7 6. 8 5. 2 6. 1 5. 8
											ORLI																
January February March April May June July August September. October November. December	30, 01 29, 91 30, 01 29, 94 29, 87 29, 95 29, 95 29, 93 29, 99 30, 13	80. 34 80. 21 80. 35 80. 13 80. 07 80. 16 80. 12 80. 05 80. 25 20. 42 80. 41	29. 55 29. 66 29. 58 29. 60 29. 67 29. 69 29. 77 29. 78 29. 80 29. 83 29. 73	49. 9 48. 1 59. 6 62. 1 72. 6 79. 2 79. 5 79. 0 66. 7 54. 3 51. 5	86. 9 86. 3 77. 5 65. 1 60. 1	83. 2 83. 2 81. 8 74. 1 62. 0 57. 6	90. 9 90. 1 89. 5 80. 2 68. 6 63. 7	46. 5 45. 8 57. 3 58. 6 69. 5 75. 7 76. 3 76. 4 75. 9 65. 5 52. 1 48. 7 62. 4	54. 5 54. 1 65. 8 67. 8 76. 2 83. 8 83. 6 83. 2 82. 7 72. 8 60. 4 56. 2 70. 1	79 79 83 88 88 96 95 94 88 89 80	66 68 71 70 73 53 40 36	47 43 54 55 66 71 74 72 60 46 46 46	68 72 73 71 60 47 49	55 64 70 72 73 72 62 49 49	80 79 77 83 85 83 81 75 84	57 60 51 61 64 61 57 55 69	72 66 61 66 60 71 72 73 67 65 76	. 636 . 771 . 834 . 841 . 794 . 544 . 342 . 343	. 315 . 429 . 450 . 608 . 692 . 788 . 809 . 766 . 547 . 362 . 379	. 343 . 455 . 456 . 601 . 746 . 794 . 814 . 789 . 573 . 376 . 379	8. 78 5. 46 2. 25 6. 55 3. 97 . 71 8. 43 7. 48 6. 75 3. 49 3. 06 3. 86 60. 79	2. 10 . 70 2. 56 1. 76 . 42 2. 43 2. 77 2. 07 2. 60 1. 81	T 0.0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0	4. 9 3. 0 5. 8 4. 2 3. 1 3. 7 5. 8 6. 5	5. 5 6. 5 6. 8 5. 1 6. 5 3. 9 6. 5 5. 7 5. 3 4. 7 5. 2 7. 1	3. 2 7. 4 5. 2 4. 3 2. 1	6. 1 3. 5 6. 6 5. 8 4. 8 3. 9 5. 0 6. 6
											YOR ' N.; )				.]												
January	29, 74   2 20, 55   3 29, 68   3 29, 70   3 29, 55   2 29, 55   2 29, 68   3 29, 76   3 29, 71   3 39, 89   3	30. 15   30. 05   30. 15   30. 30   30. 30   30. 30   30. 30   30. 30   30. 30   30. 30   30. 35   30.	28. 99 28. 72 29. 08 29. 24 29. 18 29. 23 29. 39 29. 26 28. 86 29. 05	23. 3 42. 6 43. 3 57. 9 65. 6 70. 6 63. 7 53. 7 39. 3 36. 9	27. 9 48. 3 50. 4 66. 8 71. 8 78. 9 70. 5 61. 1 45. 5 41. 0	28. 0 45. 1 48. 2 62. 6 69. 3 75. 2 74. 0 67. 3 57. 6 42. 5 40. 7	33. 7 53. 1 54. 7 72. 3 75. 9 83. 2 82. 0 73. 3 64. 2 49. 9 46. 5	37. 5 39. 6 52. 8 61. 4 66. 5 66. 2 60. 9 49. 8 35. 0	29. 9 26. 6 45. 3 47. 2 62. 6 68. 6 74. 8 74. 1 57. 0 42. 4 39. 2	53 52 72 78 90 89 102 93 87 75 73 62	2 17 30 43 55 61 58 50 27 16 12	14 34 33 47 56 61 63 57 47 31	35 35 47 55 59 62 57 46 30 29	14 35 34 47 56 61 63 58 47 30 31	64 73 67 69 72 79 79 78 71	57 62 58 52 59 53 60 64 60 56 63	56 71 62 60 67 66 74 69 62 68	. 211 . 198 . 341 . 459 . 546 . 583 . 480 . 350 . 191 . 169	. 097 . 223 . 220 . 352 . 451 . 525 . 567 . 483 . 351 . 190 . 175	. 096 . 225 . 213 . 344 . 468 . 560 . 585 . 504 . 351 . 193 . 185	6. 82 2. 41 3. 97 3. 13 2. 57 4. 17 2. 37 3. 68 5. 07 4. 05 1. 06 7. 03	2. 32 1. 01 1. 35 1. 54 1. 16 1. 34 . 88 1. 59 4. 25 2. 40 . 41 1. 80 4. 25	.0 .0 .0 .0 1.8 T	6. 6 6. 2 6. 5 3. 8 6. 3 4. 9 5. 8 5. 3 5. 3 6. 8	4. 7 6. 3 4. 3 6. 1 4. 4 6. 1 6. 0 6. 3 5. 4 5. 2	4. 5 6. 4 6. 1 3. 7 5. 9 6. 2 6. 1 4. 8 3. 4 4. 8 6. 1	5. 6 6. 2 6. 3 6. 6 3. 9 6. 0 5. 0 5. 5 5. 7 5. 5 5. 3 5. 9

NASHVILLE, TENN.

	1						[]	I = 4	85 ft.			ft.; l					ft.; l	ha=1	.88 f	t.]									
							Wine	i												1	Num	ber	of da	ys					
		Bys	self-re	egister		Nı	ımbe	er of	wind	s, 8 a	. m.	and	8 p.	m.				Pre		Sı	now		F	og	m	axi- um np.	e 32° or	tri	lec-
Month	Average hourly ve-	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	T or more	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperature below	Thunderstorm	Aurora
January February March April May June July August September October November December	11. 2	NW. NW. W. SW. SW. S. NW. SE.	Mi. 32 32 46 44 24 27 38 41 30 26 34 38 46	NW NW NW N. NW SE. NW SE. S.	1 1 1 2 3 0 0 0 4 2 0 0 0 2 1 1 16	8 4 3 7 8 1 3 7 6 3 11	6 5 4 6 9 5	76 4 9 8 1 4 7 6 9 2 10	12 7 7 8 0 11 9 12 15 2 14	1 3 13	5 5 12 6 7 16 21 17 11 5 12 3	3 6 7 8 10 12 7 4 7 10 7	13 9 13 13 12 4 2 6	1 1 1 1 1 1 1 0 0 0 1 0 0	8 11 10 9 14 18 4 9 8 10 -11 8	6 3 7 8 12 8 16 16 14 8 10 4 112	177 155 144 133 54 411 66 8 133 9 19	12 13 11 4 2 12 5 8 8 5 12	9 12 8 3 2 11 5 7	66 82 22 00 00 00 03 22 23	0	0 2 1 0 1 0 0 0 0	6 4 1 0 1 0 3 4 3 8 8 3 4	2 2 1 0 0 0 2 2 2 1 4 0 3	10° 4 0 0 0 0 0 0 0 0 0 0 1 0 0 15	0 0 0 0 3 19 18 21 12 0 0	22 1 4 0 0 0 0	2 6 2 4 3 14 5 5 4 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
							[H	= 23	ft.; E			IAV.					h. = 1	153 ft	1				,		'				
January February March April May June July August September October November December Year	9. 8 9. 0 9. 6 10. 1 9. 1 8. 8 8. 2 8. 6 9. 4 9. 0 10. 0 10. 2	NW. NN. S. S. NN. S. NN. NN. NN.	35 35 30 33 25 25 30 24 37 30 31 30 31	NE. N. NW. S. N. NE. N. SE. NW. E.	1 1 0 1 0 0 0 0 0 2 0 0 0 0		3 8 9 3 1 3 7 5 8 4 3 8	3 2 4 4 1 3 3 4 5 1 0 3 3	3 2	4 5 17 19 23 13 19 19 15 18 7 5	5 7 4 10 6 9 10 4 11 14 9	17 12 1 7 2 4 3 4 4 10 7	11 4 9 7 13 8 8 1 6 8 9 9	0 1 0 0 0 0 0 0 0 0 0 0	10 10 8 6 12 7 10 7 6 10 11 10 10 11	9 6 10 10 14 12 13 14 11 7 10 8	12 13 13 14 5 11 8 10 13 14 9 13	12 9 16 16 8 12 7 11 9 9 7		11 8 5 1 0 0 0 0 0 0 0 0 5 5 5 7	6 6 4 0 0 0 0 0 0 0 0 0 2 1	0 0 0 2 1 0 0 0 0 0 0	19 14 18 6 7 11 4 9 12 11 5 12	0 4 8 0 2 3 0 1 2 2 0 5	12 15 1 0 0 0 0 0 0 0 2 3	0 0 0 0 1 0 4 2 0 0 0 0 0 7	24 25 7 20 0 0 0 0 0 3 15 18	0 2 1 6 6 7 7 3 0 0	0 0 0 0 0 0 0 0 0 0 0 0
							ſΗ	=9 f	t.; H			RL h <sub>t</sub> =7				.; h <sub>a</sub>	=84	ft.]											
January February March April May June July August September October November December Year	7. 5	NE. NE. SE. SE. SW. SW. SE. NE. NE.	- 1	NW. NE. NW. SE. E. E. E. N. NE. NE. NE.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	10 8 1 7 5 5 2 6 2 5 8 12 71	15 20 9 9 11 7 6 7 5 23 17 14	9 4 2 2 12 3 7 7 7 9 9 11	5 13 14 14 22 16 13 19 22 12 6 9	6 2 12 9 2 6 8 4 4 0 4 4 6	4 6 11 7 0 11 19 9 5 3 4 1	4 0 5 6 4 9 5 6 10 4 4 4 4	6 4 6 6 6 3 6 2 3 4 8 7	3 1 2 0 0 0 0 2 2 2 2 0 0	11 8 10 13 7 13 3 5 11 16 12 7	5 10 8 6 14 16 18 21 14 8 9 5	15 11 13 11 10 1 10 5 7 9 19	11 9 8 9 10 5 11 12 12 6 6 7	11 7 9 7 4 10 11 12 4 5 7	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	11 6 4 3 0 0 0 2 0 1 2 4 3 3	6 1 2 0 0 0 0 0 0 0 1 1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 27 22 20 13 0 0	3 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4	0 0 0 0 0 0 0 0 0 0 0
						[E	I = 10	ft.;	H <sub>b</sub> =			YOF =415				t.; h	=45	4 ft.]											_
February	3.8 4.7 6.7 5.0 2.6 2.0 2.6 4.3 7.2 5.6	NW. NW. S. NW. SW. N. SW. SE. SW. NW. N.	46 65 56 48 49 37 47 50 52 60 50	S. NW. NW. NW. NW. SS. N. NW. SE.	13 7 10 15 10 5 4 7 6 6 6 11 12	8 7 7 8 9 12 9 6 6 6 11 9 16	1 5 4 4 3 7 2 7 12 5 2 10 62	5 7 10 4 1 5 7 10 6 6 1 8 70	5 3 9 5 5 5 8 3 8 14 3 2 0 65	3 2 10 13 14 11 13 7 5 11 3 2	4 2 7 6 13 8 7 10 8 8 17 8	19 6 7 4 3 12 8 5 13 3	20 13 9 13 13 6 9 6 4 5 23 11	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	10 9 8 6 16 9 11 10 11 11 10 9	8 6 9 11 10 7 12 11 8 7 10 9	13 14 14 13 5 14 8 10 11 13 10 13	12 16 13 8 12 8 15 11 9	11 8 11 12 7 10 7 11 6 6 6 6 12	12 7 4 0 0 0 0 0 0 0 0 0 0 0 0 8 4 4 3 5	6 7 4 0 0 0 0 0 0 0 0 2 1	0 0 0 0 0 1 0 1 0 0 0 0 0 1 0 0 0 0 0 0	13 11 16 10 5 16 8 11 11 12 7 12	3 2 6 0 1 2 0 0 2 3 3 2 24	11 14 0 0 0 0 0 0 0 0 0 0 2 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	23 25 9 2 0 0 0 0 0 2 14 12	1 0 3 1 6 8 13 11 3 1 0 0	0 0 0 0 0 0 0 0 0 0 0 0

#### NORFOLK, VA.

				,					$[\phi = 3]$	6°51′	N.;	λ='	76°1'	7′ V	∇.]												
	F	ressu	ге			Г	'empe	ratur	e										ľ	Moist	ıre						
		Extr	emes			M	ean			Ext	remes		Dev poin			elati midi		Vapo	or pre	ssure	Pre	cipita	tion		Clou	dines	SS
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
February March April May June July August September October November December	29. 94 29. 98 30. 02	30. 50 30. 29 30. 45 30. 49 30. 08 30. 21 30. 22 30. 25 30. 36 30. 51 30. 63	29. 21 29. 14 29. 36 29. 60 29. 50 29. 61 29. 73 29. 22 29. 34 29. 46 29. 61	33. 2 49. 0 52. 2 65. 0 70. 8 75. 6 75. 9 70. 2 61. 6 46. 2 42. 6	59. 9 73. 2 78. 7 84. 1 84. 3 78. 2 69. 3 54. 4 48. 3	54. 0 55. 0 66. 8 74. 3 78. 4 78. 6 72. 4 64. 1 50. 8 46. 6	64. 5 44. 8 62. 9 64. 9 77. 9 82. 2 87. 6 87. 0 80. 8 71. 6 58. 0 53. 4	29. 2 44. 6 46. 9 57. 9 65. 8 70. 6 72. 1 66. 4 58. 3 42. 9 39. 1	37. 0 53. 8 55. 9 67. 9 74. 0 79. 1 79. 6 73. 6 65. 0 50. 4 46. 2	96 96 91 83 81 71	10 10 32 34 52 58 63 64 59 41 25 27	27 28 42 42 54 62 69 70 64 56 39 38	40 51 68 67 63 54 38 39	29 29 43 44 54 63 70 66 56 39 40	% 76 80 80 69 69 76 80 82 83 81 77 84 78	66 54 51 48 57 59 57 62 60 56 73	73 68 68 66 69 77 76 80 76 65 79	In. 0. 170 . 168 . 289 . 287 . 427 . 569 . 708 . 733 . 613 . 472 . 263 . 242 . 412	In. 0. 182 . 170 . 277 . 273 . 392 . 550 . 682 . 669 . 590 . 448 . 257 . 256 . 396	. 174 . 291 . 298 . 434 . 580 . 739 . 742 . 636 . 479 . 266 . 265	In. 6. 60 4. 16 3. 83 4. 71 . 98 3. 95 9. 30 1. 77 4. 95 5. 31 1. 87 4. 88	1, 33 2, 07 1, 52 52 1, 32 3, 40 , 91 4, 06 2, 19 , 71 , 96	13. 2 T . 0 . 0 . 0 . 0 . 0 . 0 . 0	7. 2 6. 3 6. 0 3. 9 5. 9 7. 0 5. 9 6. 8 7. 4	6. 1 5. 1 3. 6 5. 3 6. 8 6. 0 6. 6 6. 3 5. 5 6. 9	3. 5 5. 6 6. 2 5. 9 5. 6 3. 7 5. 3 6. 4	7. 2 7. 0 6. 1 4. 1 5. 6 6. 7 6. 3 6. 2 5. 5 6. 2
											THFI N.;																
January Fe'ruary March April May June July August September October November December	29. 09 29. 02	29. 67 29. 70 29. 80	28. 19 28. 34 28. 25	43. 1 26. 8 20. 1	18. 1 38. 1 43. 2 63. 1 70. 7 72. 8 71. 4	57. 2 65. 3 65. 9 63. 1 56. 4 43. 9 29. 8 25. 2	24. 1 23. 3 44. 7 47. 1 68. 9 75. 3 77. 0 75. 2 69. 3 56. 9 39. 1 34. 4 52. 9	42. 7 49. 2 52. 3 50. 2 43. 4 34. 4 19. 8 11. 6	13. 0 11. 6 34. 2 39. 2 55. 8 62. 2 64. 6 62. 7 56. 4 45. 6 29. 4 23. 0 41. 5	39 40 64 74 89 87 90 89 84 78 70 57	-25 -16 -14 20 23 35 40 38 23 12 -8 -15 -25	6 4 26 29 43 51 55 54 49 38 22 16	66 50 37 23 20	11 10 29 30 45 53 57 57 51 38 24 19	90 89 84 72 68 69 74 83 88 82 83 85		80 74 66 65 74 80 84 79 78 79	0.067 .058 .154 .172 .298 .383 .448 .433 .364 .244 .132 .104	0. 079 . 069 . 161 . 178 . 315 . 381 . 423 . 386 . 239 . 138 . 115	. 201 . 178 . 324 . 415 . 478 . 468 . 400 . 250 . 139 . 112	3. 74 1. 31 6. 05 3. 97 1. 83 2. 12 3. 73 5. 54 2. 93 4. 30 2. 23 3. 57 41. 32	. 46 1. 42 1. 36 . 56 . 92 1. 54 1. 13 . 98 1. 56 1. 25	.0	6. 2 6. 9 7. 9 6. 7 6. 3 6. 1 6. 2 5. 7 6. 5 7. 8 7. 1		6. 3 5. 6 6. 6 7. 8 6. 3 5. 4 4. 9 6. 5 4. 8 4. 4 7. 7 7. 0 6. 1	7. 5 8. 1 6. 7 6. 1 6. 2 6. 6 6. 8 7. 6 7. 4
								Į			ΗΕΑ Ν.; λ																
anuary Fel ruary March April Nay une July August September October November December Year	29. 90 29. 90 29. 81 29. 78 29. 84 29. 85 29. 86 29. 91 30, 05 29. 78	30. 26 30. 45 30. 34 30. 06 30. 02 29. 96 30. 21 30. 22 30. 34 30. 35	29. 46 29. 43 29. 39 29. 40 29. 53 29. 60 29. 49 29. 53 29. 82 29. 20	44. 8 36. 8 41. 5 46. 8 51. 3 56. 2 57. 8 58. 5 53. 5 47. 1 43. 8 49. 2	40. 7 45. 2 51. 1 55. 4 59. 8 62. 1 62. 5 57. 7 56. 6 52. 5 46. 0		49. 5 43. 9 47. 3 54. 0 57. 5 61. 9 63. 4 64. 8 61. 1 60. 5 56. 8 47. 9 55. 7	33. 6 38. 7 45. 6 48. 7 54. 3 56. 4 56. 3 51. 6 49. 9 44. 2	45. 2 38. 8 43. 0 49. 8 53. 1 58. 1 59. 9 60. 6 56. 4 55. 2 50. 5 44. 2	55 50 55 68 76 77 67 78 82 87 69 52	32 23 29 33 43 50 53 52 45 42 35 31	40 31 38 44 47 53 55 56 50 48 40 42	56 58 52 50 42 44	41 34 38 45 50 54 56 58 51 50 43 43		82 84 82 86 84 83 72 92	77 80 84 86 80 79 87 83 86 77 93	. 183 . 230 . 294	. 201		7. 85 4. 59 . 85 4. 42 4. 28 1. 38 . 83 1. 04 . 95 1. 12 9. 22	2. 88 1. 20 . 36 1. 15 1. 35 . 40 . 47 . 50 . 62 . 43 1. 26	4. 0 .7 .0 .0 .0 .0 .0		8.0	7. 7 7. 9 7. 9 8. 4 7. 8 6. 4 3. 8 6. 1 5. 3 5. 0 3. 8 7. 7	6. 9 4. 6 6. 5 5. 1 5. 4 4. 2 7. 8
											PLAT N.; )																
February 2 March 2 April 2 May 2 June 2 July 2 September 2 October 2 November 2 December 2	27. 08 2 27. 06 2 27. 02 2 27. 05 2 27. 06 2 27. 06 2 27. 13 2	7, 40 2 2 7, 32 2 7, 45 2 7, 45 2 7, 36 2 7, 36 2 7, 44 2 7, 32 2 7, 49 2 7, 59 2 7, 54 2 7, 40 2	26, 46 26, 38 26, 58 26, 51 26, 45 26, 79 26, 82 26, 67 26, 62 26, 75 26, 64	2. 9 29. 3 36. 2 54. 8 62. 8 70. 5 64. 9 56. 6 37. 2 26. 1 22. 9	17. 7 48. 6 54. 7 70. 5 81. 4 92. 9 86. 4 76. 0 59. 6 48. 5 36. 2	16. 3 47. 0 55. 7 70. 7 81. 2 92. 0 87. 0 74. 2 55. 4 41. 4 32. 1	23. 0 53. 7 60. 2 74. 9 85. 9 97. 4 93. 4 81. 1 64. 6 53. 6 41. 9	1 26. 8 34. 1 52. 8 60. 1 68. 1 64. 0 54. 7 34. 4 23. 5 19. 6	21. 7 11. 4 40. 2 47. 2 63. 8 73. 0 82. 8 78. 7 67. 9 49. 5 38. 6 30. 8	63 66 77 85 92 102 108 108 95 87 68 57	-25 - 15 - 37 46 56 49 38 14 7 -2	-4 22 29 48 54 54 54 31 21 20	3 22 31 48 54 51 55 48 34 23 24	6 23 31 49 54 52 56 47 33 23 25	71 73 75 80 73 59 73 77 79 80 88	54 6 38 4 46 4 41 28 3 36 43 41 39 63	63 41 46 50 43 30 39 41 46 49	. 116 . 172 . 345 . 416 . 432 . 443 . 368 . 177 . 112 . 107	. 064 . 118 . 184 . 348 . 421 . 388 . 445 . 372 . 197 . 125 . 131	. 077 . 122 . 186 . 359	0. 48 . 40 . 57 1. 59 3. 17 1. 64 . 96 1. 23 . 35 . 41 . 03 . 43	0. 23 . 21 . 29 . 67 1. 37 1. 11 . 67 . 96 . 28 . 33 . 03 . 25 1. 37	4.7 4.3 2.4 .0 .0 .0 .0 .0 .0 .0 .3 4.2	5. 2 4. 7 5. 0 6. 3 4. 2 2. 8 3. 9 4. 8 4. 1 3. 0	6. 1 5. 5 4. 5 4. 9 4. 2 1. 8 2. 3 3. 4 3. 5 3. 9	6. 7 5. 5 5. 8 4. 4 3. 3 2. 7 4. 0 2. 2 4. 7 2. 8 4. 6	6. 0 6. 7 5. 3 5. 2 5. 5 3. 8 2. 6 3. 3 3. 7 4. 4 3. 5 5. 8

#### NORFOLK, VA.

							H = 1	l1 ft.	; Нь		NOR ft.; ]					ft.; ł	1 a = 1	25 ft	.]										
						,	Wind	l												I	Numl	oer	of da	ys					
		Вуз	self-re	gister		Nu	ımbe	r of v	vind	s, 8 a	. m.	and	8 p.	m.				Pre- itat		Sr	10W		F	og	. mi	axi- im np.	ure 32°	tri	lec- city
Month	Average hourly velocity	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North FEG.	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	T or more	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperature or below	Thunderstorm	Aurora
January February March April May June July August September October N ovember D ecember	11. 0 10. 2 9. 2 9. 3 8. 0 8. 6 9. 9 9. 4 10. 6	N. SW. SE. SW. W. SW. E. N.	Mi. 39 35 43 29 25 31 53 31 56 28 30 36	N. SE. NW. W. W. NW. SE. NW.	2 2 2 0 0 0 0 3 0 2 2 0 0 1 1 12	4 2 4 9 12	5 11 6 7 9 10 7 8 7 10 8 15	7 9 9 9 4 11 18	7 4 11 9 17 7 6 5 4 7 2 3	6 8 9 6 8 5 8 10 10 6 8 5 8 9	4 8 18 11 5 15 16 15 10 9 13 6	111 6 7 7 6 5 13 7 5 8 11 6	1 2 4 2 5 4 4 2 2 2 2 2 5	0 0 0 0 0 0 0 0 0 0 0 0 0	8 6 4 8 16 10 6 8 9 10 8 8 8 101	7 6 11 10 8 8 10 9 6 11 8 4	16 12 7 12 15 14 15	12 13 16 11 5 12 14 10 7 11 10 15	11 9 9 3 9	6 6 6 1 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 5	5 5 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0	12 13 13 8 7 8 8 5 12 14 9 20	6 2 1 0 0 0 0 0 0 1 1 0 3	8 7 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 1	19 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 2 2 4 7 143 5 3 1 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
						[]	H=8	40 ft.	; H <sub>1</sub>		ORT					ft.: )	h.=6	0 ft.]									,		
January February. March April May June July August September October November December	7. 2 7. 9 7. 7 8. 5 8. 2 7. 8 6. 6 6. 6 7. 2 8. 0 8. 4 8. 5 7. 7		30 24 25 30 24 27 23 27 24 26 27 32 32	S. SW.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20 9 9	1 3	0	0 1 0 0 1 1 5 1 2 4 4 4 0	22 22 24 24 20 19 17 27 28 20 19 22 22	9 11 18 10 9 11 6 7 8 17 11 12	1 0 1 1 0 0 0 1 0 0 2 3 2	4 7 3 10 6	5 4 4 2 2 3 4 5 3 7 2 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	6 6 5 3 4 6 4 5 3 9 2 4	7 8 7 5 16 13 15 14 13 6 10 9	18 15 19 22 11 11 12 12 14 16 18 18	19 10 19 19 15 8 9 12 10 13 18 16	14 7 15 13 11 6 7 10 7 12 6 13	22 16 8 13 0 0 0 0 0 3 15 13	19 10 7 11 0 0 0 0 1 11 8 67	0 0 0 0 0 1 0 1 0 0 0 0	1 2 8 2 4 2 3 12 15 2 4 4 4	0 0 5 0 2 0 1 6 7 0 0 2 2 2 2 2 2 2 3	23 21 4 0 0 0 0 0 0 0 0 8 11	0 0 0 0 0 0 0 1 0 0 0 0 0 0	29 22 17	0 1 6 4 11 5 3 1 0	0 1 1 0 0 0 0 0 0 1 0 0 0 0 3
							[H=	196 f	t.; H						$V_{ASI}$		ha=5	6 ft.]											
August	14. 6 14. 7 11. 9 17. 0 13. 3 14. 2 11. 2 11. 0 10. 3 9. 1	E. NW. NW. NW. NW. NW. NW. NW. NW. NW. NW	34 35 33 37 60	S. S. N.W. S.	12 13 11 1 12 6 6 2 4 2 4 10 83	3 1 3 1 3 4 7 10 18 20 15 5	3 2 3 1 3 1 0 0 1 1 5	19 24 7 4 2 3 3 3 2 1 12 103	9 2 7 9 11 7 2 7 4 11 14 7 90	7 7 6 11 12 10 9 6 6 5 1 1 18	11 4 7 7 4 10 2 0 2 0 0 3 50	5 10 13 7 4 5 2 7 6 3 4 7 7	5 8 16 20 22 20 37 29 20 19 4 5	0 0 0 0 1 0 0 1 0 0 0	4 1 1 2 3 7 12 7 11 13 15 2 7 7	2 7 5 6 7 4 12 10 10 5 8 10	25 21 25 22 21 19 7 14 9 13 7 19	17 23 14 16 15 9 4 5 5	21 15 12 7 14 14 8 2 3 4 3 20	1 3 6 1 0 0 0 0 0 0 0 0	0 2 4 1 0 0 0 0 0 0 0 0 7	4 0 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 8	2 3 5 7 4 0 1 10 13 14 5 7	0 2 6 2 0 0 0 1 1 3 4 0	0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 13 3 0 0 0 0 0 0 0 0 0 1	2 0 0 0 1 1 0 0 0 0 2 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0
						[	H=2	,805 1							EBR h <sub>r</sub> =3		ha=8	51 ft.]	l										
November	7.6 9.7 8.8 8.4 8.2 7.8 6.4 8.0 7.5 6.5	W. N. N. N. N. S. S. S. S. W. W. W. W.	28 28 27 27 35 23 22 27 26 33 18	N. NW. NE. W. NE. NE. NE. NE. NE. NE.	0 0 0 0 0 2 0 0 0 0 2 0 0 0 4	10 10 15 12 10 5 5 8 11 12 9 10	3 4 7 10 2 10 3 5 9 9 6 3 71	12 6 4 5 5 9 4 6 5 1 1 1 5	4 13 2 6 19 15 11 12 10 2 2 2 2 98	2 2 7 11 9 7 21 11 12 9 3 6	7 5 4 2 5 3 6 6 6 2 6 5 8 5 9	16 5 12 10 3 4 5 8 5 13 25 19	7 12 10 3 6 6 5 5 6 8 9 9	1 1 1 1 3 1 2 1 0 0 0 13	8 6 10 9 10 13 22 20 16 14 16 8 152	9 10 12 12 14 14 14 6 7 9 10 9 11 123	14 13 9 9 7 3 3 4 5 7 5 12 91	8 8 5 6 9 5 5 5 4 5 1 4 65	3 6 8 5 4 5 2 0 3	14 14 14 9 5 0 0 0 0 0 0 2 4 7	8 8 5 2 0 0 0 0 0 2 1 3 29	0 0 0 1 1 0 1 1 1 0 0 0 0 0 0 1 0 0 0 0	7 8 1 7 5 2 3 3 8 5 4 13	1 1 0 0 0 0 0 0 2 2 2 1 0 3	15 20 3 3 0 0 0 0 0 1 2 3 3 47	0 0 0 0 2 13 25 20 7 0 0 0 0	31 29 26 10 0 0 0 0 12 27 31 166	0 0 0 3 7 6 5 5 2 2 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

## UNITED STATES METEOROLOGICAL YEARBOOK

Table 16.—Annual meteorological summaries for the year ended Dec. 31, 1936—Continued Oklahoma City, okla.

 $[\phi = 35^{\circ}26' \text{ N.}; \lambda = 97^{\circ}33' \text{ W.}]$ 

										= 30 4	%6′ N.	, ^=	-91	33	vv .j												
		ressu	ге												N	Moisti ———	ure			1							
		Extr	emes			M	ean			Exti	emes		Dew			elati mid		Vap	or pre	ssure	Pre	cipita	tion		Clou	dines	5S
Month	Monthly mean	Maximum	Mınimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
May June	28. 72 28. 71 28. 64 28. 67 28. 67 28. 67 28. 77 28. 92 28. 78	29. 08 28. 97 28. 90 28. 98 28. 90 28. 91 29. 21 29. 23 29, 08	28. 41 28. 47 28. 31 28. 45 28. 35 28. 21	51. 2 63. 8 71. 1 76. 1 76. 9 69. 7 51. 3 40. 0 38. 2	76. 8 88. 9 94. 8 97. 6 81. 0 64. 1 54. 1 47. 5	37. 9 38. 1 62. 5 68. 0 75. 5 87. 4 93. 7 95. 4 78. 6 61. 2 50. 0 46. 0	45. 4 69. 2 75. 0 80. 4 92. 6 98. 7 101. 2 84. 6 67. 8 58. 5 52. 5	21. 6 43. 1 48. 4 62. 1 68. 9 74. 7 76. 2 67. 9 49. 3 36. 6 36. 1		69 79 81 94 89 107 109 113 102 87 80 64	12 -11 32 20 54 57 67 64 45 29 23 22 -1		19 30 36 57 60 60 58 62 48 31	24 18 30 34 57 60 58 56 61 31 36	% 79 74 58 57 84 67 67 56 80 82 70 85	% 55 48 30 31 53 41 33 28 59 60 44 66 46	46 31 31 54 42 32 29 62	In. 0. 123 . 126 . 190 . 231 . 499 . 512 . 594 . 523 . 584 . 324 . 190 . 203 . 342	. 129 . 180 . 237 . 481 . 534 . 529 . 492 . 576 . 359 . 187 . 221	. 177 . 224 . 477 . 528 . 488 . 462 . 560 . 373 . 188 . 225	. 76 . 21 . 03 5. 56 . 23 . 06 . 17 8. 49 1. 93	. 74 . 21 . 02 2. 62 . 21 . 05 . 17 1. 98 . 63 . 04 . 69		4. 9 4. 1 4. 9 6. 9 2. 3 3. 1 2. 0 5. 9 4. 3 2. 9 5. 0	5. 6 3. 0 4. 1 6. 6 2. 3 3. 4 2. 3 5. 5 5. 5	4.6	3. 1 5. 9
									$[\phi =$		АНА, 8′ N.;				V.]												
February March April May June July August September October November December	28. 82 28. 98 28. 94 28. 87 28. 87 28. 88 28. 91 28. 99 29. 11 29. 03	29. 37 29. 30 29. 35 29. 28 29. 22 29. 33 29. 15 29. 37 29. 56 29. 56 29. 40	28. 33 28. 20 28. 54 28. 44 28. 13 28. 55 28. 57 28. 46 28. 47 28. 53	6. 6 2. 2 33. 6 39. 9 60. 5 66. 4 76. 2 71. 5 61. 6 44. 5 30. 0 26. 5	10. 4 48. 1 56. 0 75. 3 81. 1 96. 2 90. 0 76. 1 59. 3 45. 0	56. 4 74. 1 80. 3	53, 7 61, 0 79, 0 86, 0 100, 4 95, 0 80, 8 63, 8 49, 5 37, 9	1. 6 -1. 7 31. 1 37. 2 56. 9 61. 7 73. 0 68. 7 59. 2 40. 5 25. 7 21. 0 39. 6	10. 4 6. 5 42. 4 49. 1 68. 0 73. 8 86. 7 81. 8 70. 0 52. 2 37. 6 29. 4 50. 7	44 46 75 88 94 105 114 110 101 84 70 62 114	-21 -18 16 10 35 50 58 56 42 23 10 -3 -21	4 -1 27 30 53 55 59 60 57 38 24 23 36	8 3 29 30 53 54 56 60 56 39 27 26	9 5 30 30 53 56 56 59 57 40 25 25	88 85 77 68 78 68 57 70 87 78 86 77	53 48 50 74	81 79 54 42 50 45 27 40 61 55 55 78	0. 065 . 050 . 150 . 183 . 415 . 513 . 529 . 494 . 246 . 133 . 135	0. 073 . 058 . 163 . 185 . 410 . 432 . 459 . 536 . 491 . 258 . 148 . 151	. 065 . 170 . 184 . 409 . 464 . 455 . 513 . 498 . 265 . 135 . 142	. 69 . 84 . 23 4. 37 3. 28 . 52 2. 43 4. 54 1. 07	. 20 . 77 . 47 2. 66 1. 32 . 52 1. 07 1. 32 1. 05 . 13 . 79	13. 5 T 1. 6 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0	5. 7 5. 5 4. 9 5. 9 5. 7 4. 2 1. 9 5. 1 5. 1 4. 4 3. 1 5. 6 4. 8	6. 4 6. 3 4. 5 5. 1 5. 5 4. 1 3. 0 4. 3 4. 8 4. 1 4. 3 7. 0 5. 0	6. 9 6. 6 4. 8 6. 1 5. 6 3. 2 2. 5 4. 5 4. 7 3. 5 3. 2 5. 6 4. 8	6. 2 6. 2 4. 5 5. 5 3. 8 4. 2 5. 0 4. 2 3. 8 6. 5
									$[\phi =$		VEG VN.;				7.]												
February March April May June July	29. 51 29. 62 29. 64 29. 54 29. 52 29. 62 29. 70 29. 67 29. 64 29. 83	30. 18 30. 05 30. 08 30. 25 29. 93 29. 97 30. 00 30. 00 30. 17 30. 31 30. 34	28. 78 28. 80 28. 94 29. 13 29. 07 29. 27 29. 28 29. 21 28. 87 29. 01 28. 82		23. 6 20. 6 37. 6 41. 5 60. 7 66. 4 72. 4 71. 3 66. 4 53. 8 37. 3 33. 1 48. 7	23. 4 19. 3 36. 4 41. 2 57. 5 64. 7 71. 7 69. 6 63. 4 51. 6 35. 8 33. 1 47. 3	27. 6 25. 2 42. 5 47. 7 67. 0 73. 1 78. 1 76. 7 70. 4 58. 8 42. 8 38. 8	17. 2 11. 3 29. 3 34. 3 45. 6 54. 4 61. 6 60. 1 54. 5 43. 8 28. 0 24. 1 38. 7	22. 4 18. 2 35. 9 41. 0 56. 3 63. 8 69. 8 68. 4 62. 4 51. 3 35. 4 31. 4	42 48 65 75 84 85 94 93 89 76 70 59	-2 -4 5 26 32 46 49 51 36 23 8 0	58 54 41 27 23	17 13 28 31 46 52 58 58 55 42 28 24 38	59 55 41 28 24	75 71 72 72 78 79 77 77 75	60 61 60 66 68 66 69 70	76 77 73 64 66 61 71 75 69 72	.074 .156 .192 .319 .404 .502 .481 .431 .282 .161	. 331 . 407 . 483 . 497 . 459 . 293 . 169 . 138	. 081 . 172 . 198 . 312 . 411 . 476 . 511 . 448 . 280 . 166 . 140	3. 01 5. 61 2. 81 2. 01 . 70 1. 34 3. 53 4. 08 3. 21 3. 71 2. 48	. 70 1. 20 . 82 . 63 . 18 . 60 1. 37 1. 54 . 94 1. 24	21. 5 40. 5 12. 3 4. 3 . 0 . 0 . 0 . 0 . 0 T 13. 1 15. 6	9. 3 8. 9 7. 3 8. 2 6. 1 5. 8 4. 1 6. 6 5. 9 7. 1 8. 9 9. 0 7. 3	5. 6 3. 4 5. 9 5. 3 7. 0 8. 4 8. 4	9. 0 8. 0 7. 6 8. 0 5. 4 5. 3 4. 6 6. 4 4. 5 6. 6 8. 3 6. 8	8. 9 8. 2 7. 8 7. 9 5. 5 5. 5 4. 0 6. 5 5. 8 7. 0 8. 6 7. 9
											STII ' N.; :				[.]												
January February March April May June July August September. October November. December.	29. 39 2 29. 52 2 29. 46 2 29. 39 2 29. 45 2 29. 46 2 29. 44 2 29. 55 2 29. 69 3 29. 60 2	29. 95 29. 75 29. 89 29. 65 29. 60 29. 65 29. 65 29. 65 29. 65 29. 65 29. 58 29. 58 29. 83 30. 04 29. 92 2	28. 93 29. 08 29. 08 28. 95 29. 20 29. 10 29. 23 29. 26 29. 20 29. 34 29. 29 29. 13	39. 4 55. 4 55. 3 66. 3 74. 4 74. 3 75. 5 71. 8 56. 2 47. 0 46. 8	46. 7 68. 9 69. 7 78. 5 88. 4 85. 7 89. 3 84. 6 68. 7 59. 1 56. 4	56. 5 55. 6	64. 4 62. 5	43. 8 42. 8	46. 4 44. 8 63. 6 63. 7 72. 7 82. 1 80. 8 84. 2 79. 5 63. 9 54. 1 52. 6 65. 7	75 78 88 92 87 103 95 104 97 88 84 75	13 42 33 58 64 66 65 52 41 28 27	33 48 47 62 66 71 70 69 52 40 43	64 70 68 66 51 39	63 65 71 68 67 53 40 45	77 78 76 88 77 90 84 91 86 77 86	63 48 45 60 46 61 55 58 52 71	60 46 46 68 47 68 54 65 63 57 70	. 219 . 354 . 365 . 564 . 659 . 764 . 726 . 398 . 270 . 295	. 332 . 572 . 613 . 739 . 680 . 650 . 391 . 265 . 326	. 230 . 327 . 321 . 579 . 623 . 756 . 702 . 667 . 415 . 267 . 317	0. 42 . 94 1. 27 2. 88 6. 83 . 92 7. 38 . 63 1. 95 3. 36 3. 02 3. 01 32. 61	0. 25 . 52 . 90 1. 03 1. 59 3. 83 1. 29 . 33 . 64 1. 60 1. 24 1. 23	.0	4.7 4.7 4.9 3.4 5.8 3.5 4.5 3.8 4.6 5.5	5. 6 6. 5 4. 2 4. 5 6. 7 2. 8 5. 8 3. 8 5. 4 4. 6 3. 7 5. 4	3. 9 3. 9 4. 4	4. 2 6. 2 2. 7 5. 4 4. 0 4. 8 4. 4 4. 3 5. 5

<sup>1</sup> Observations taken at airport.

Table 16.—Annual meteorological summaries for the year ended Dec. 31, 1936—Continued OKLAHOMA CITY, OKLA.

	1						[:	H=1			лц( [b=1						3 ft.;	h a =	47 ft	.]									
						,	Wind													N	vum	ber	of da	ys					
		By s	elf-re	gister		Nu	ımbe	r of v	wind	s, 8 a	. m.	and :	8 p.	m.				Pre itat		Sı	now		F	og	m	axi- im np.	ure 32°	d-mi	lec- city
Month	A verage hourly velocity	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over		0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperature or below	Thunderstorm	Aurora
January February March April May June July August September October November December Year	11. 0 11. 4 11. 7 9. 1 9. 6 9. 2 8. 9 9. 2 9. 7 9. 7		Mi. 25 30 30 30 28 25 21 18 21 25 27 24 30	N. SW. NW. SE. S. NE. S. NW. SE.		10 10 8 9 5	5 4 4 4 7 4 2 4 1 2 2 4 3	2 9 4 5 7 7 6 3 3 1 2 1	4 6 4 6 15 6 4 3 8 4 3 10	25	3 1 4 5 0 0 6 2 0 2 2 4	4 1 4 3 6 2 0 3 2 2 2 2 1	5 2 7 2 1 0 2 0 5 7 7 5	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12 11 14 13 8 21 18 25 8 14 19 11	7 8 12 9 5 5 9 4 7 4 4 5	12 10 5 8 18 4 4 2 15 13 7 15	4 3 1 2 11 2 2 2 14 6 2 6 5 5	1 1 0	4 11 0 1 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1	1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	6 1 0 3 0 0 0 5 11	2 0	8 8 0 0 0 0 0 0 0 0	0 0 0 4 0 19 29 30 14 0 0	21 1 5 0 0 0 0 0 0 2 7 7	2 1 2 5 4 3 2 6 2 1 1	0 0 0 0 0 0 0 0 0 0 0
							[H	=978	ft.; ]		OM A					ft.: }	n <sub>a</sub> =4	4 ft 1			!			!				1	
January	12. 7 13. 2 10. 6 10. 9 9. 1 9. 2 9. 8 10. 5 11. 5 9. 9	NW. NW. SE. S. S. S. NW. S.	34 35 41 39 61 55 73 46 34 34 36 29	W. NW. NE. N. W. SW. NW. SE.	1 3 7 4 4 3 3 1 4 3 3 4 0 0 37	9 11 6 16 7 12 9 10 14 18 12 13	3 8 4 3 1 7 6 2 3 1 1 1 1	2 4 5 0 7 9 2 11 9 4 4 1	14 8 14 18 11 12 13 11 11 5 18	8 4 4 4 16 15 26 17 17 15 13 13	0 0 4 6 1 1 3 1 1 2 5 0	3 6 4 2 1 0 1 1 2 3 0 3	20 17 21 14 11 4 2 6 2 5 17 12	3 0 0 1 0 1 1 1 1 3 3 1	9 5 12 10 10 15 25 16 12 15 15 6	7 12 13 9 10 10 4 9 9 8 8 8	15	13 11 3 6 9 5 1 9 9 3 2 4	10 5 22 3 5 5 5 1 7 9 1 1 1 3 5 5 5	19 17 5 5 0 0 0 0 0 0 0 5 6	13 11 1 2 0 0 0 0 0 0 0 0 0 3	0 0 1 1 1 2 0 0 0 0 0 1 0 0		1 0 2 1 0 0 0 0 0 0 0 0 3	25 23 2 2 2 0 0 0 0 0 0 0 2 10	0 0 0 0 3 12 28 22 7 0 0 0	29	0 0 1 3 7 11 4 9 6 1 0 1	0 0 0 0 2 0 1 0 0 0 0 0 0 0 3 3
							[H=	292 f	t.; H				,	V.Y.		ft.; l	1 <sub>a</sub> =8	5 ft.]											_
October November December	12. 5 11. 0 11. 2 9. 1 7. 7 7. 7 7. 8 8. 4 9. 6 11. 3 11. 4	SE. SE. SE. W. W. W. N. S. SS. SE.		W. W. N. SW. NW. N. N. N. N. N. N. N. N. W. W.	2 0 0 0 0 0 0 0 0 0 1 2 1	4 2 7 4 10 8 7 7 2 4 7	3 3 4 1 1 1 4 7 6 3 1 1 1	4 2 1 3 0 0 0 0 3 2 1 1 4 21	14 13 12 8 4 5 1 8 10 14 6 22	11 11 12 13 11 17 12 19 22 20 22 15	5 10 9 7 13 9 6 3 1 3 8 0	9	15 10 4 3 3 4 13 3 6 15 4 83	0 0 0 0 1 2 0 1 0 0 0 0 4	1 3 5 3 8 8 14 5 9 6 2 3 67	3 3 4 5 11 14 13 12 10 9 3 7	27 23 22 22 12 8 4 14 11 16 25 21 205	10	13 15 15 6 6 5 7 7 12 15 8	24 23 11 7 0 0 0 0 0 0 2 15 10	15 19 9 4 0 0 0 0 0 1 10 5	0 0 0 0 1 0 1 0 0 2 0 0	2 1 8 7 6 1 0 1 6 1 2 0	0 0 2 0 1 0 0 0 0 0 0 0	16 21 5 1 0 0 0 0 0 0 4 7	0 0 0 0 0 0 0 2 1 0 0 0 0	29 28 20 11 0 0 0 0 4 17 24	0 0 0 0 3 2 4 6 1 3 0 2	0 0 1 0 0 0 0 0 0 0 0 0 0
							[H=	491 fi	t.; H		LES 0 ft.;					ft.; h	a=72	ft.]											
February March April May June July August September October November	8. 5 8. 5 8. 6 7. 2 7. 2 6. 7 5. 8 7. 4 6. 4	S. S	23 25 23 24 20 23 25 26 21 20	SW. NW. S. S. NW. S. S. NE. S. NW.	0 0 0 0 0 0 0 0 0	13 15 10 10 6 6 4 0 2 13 16 8	8 11 8 9 13 9 4 3 3 9 14 8	5 3 3 16 2 6 4 6 4 3 9	5 5 2 6 11 6 8 3 13 6 1 8	14 20 28 24 11 23 23 26 21 13 10 14	5 1 3 4 3 9 14 24 10 1	6 1 5 1 1 3 1 2 2 5 8 2	6 1 3 3 0 1 2 0 3 6 6 6 6	0 1 0 0 1 1 1 0 0 0 5 1 1	15 8 15 16 7 20 7 14 10 18 15 11	6 9 9 5 10 9 15 15 15 15 8	10 12 7 9 14 1 9 2 5 13 10 12	2	2 5 3 4 12 1 10 4 6 7 4 6	3 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 1 0 0 0 0 0 0 0 0 0 0	0 0 0 0 1 0 0 0 0 0 0 0 0	1 1 1 2 0 3 1 0 2 4 5	2 4 3 2 1 0 1 0 0 1 5	0 1 0 0 0 0 0 0 0	0 0 0 3 0 23 20 28 19 0 0	11 16 0 0 0 0 0 0 0 0 0 0 0 0 2 3	0 1 4 3 11 3 12 6 6 6 3 0 1	0 0 0 0 0 0 0 0 0 0

0 103 99 64 74 227 81 37 37 10 156 106 104 91 64

26 S.

Year..... 7.4 S.

<sup>&</sup>lt;sup>1</sup> Observation taken at airport.

Table 16.—Annual meteorological summaries for the year ended Dec. 31, 1936—Continued Parkersburg, W. Va.

 $[\phi = 39^{\circ}16' \text{ N.; } \lambda = 81^{\circ}36' \text{ W.]}$ 

	F	ressu	re			Т	empe	ratur			6' N.;		81-6		····					Moist	ure				-4		
		Extr	remes			Me	ean			Ext	remes		Dev poin			elati mid		Vap	or pre	ssure	Pre	cipita	tion		Clou	dine	ss
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
January February March April May June July August September October November December	29. 46 29. 27 29. 42 29. 30 29. 32 29. 40 29. 43 29. 48 29. 50 29. 59	29. 67 29. 86 29. 84 29. 57 29. 75 29. 72 29. 68 29. 86 29. 97 29. 98	28. 73 28. 83 28. 84 29. 11 28. 94 29. 06 29. 18 29. 14 28. 93 28. 96	22. 4 40. 2 45. 6 60. 1 67. 5 72. 3 71. 9 64. 4 51. 1 36. 2 32. 5	45. 2	26. 8 31. 0 49. 2 52. 4 70. 3 78. 0 82. 4 79. 5 73. 2 57. 8 41. 8 40. 0 56. 9		17. 3 18. 3 35. 7 39. 3 52. 5 61. 1 65. 7 66. 9 59. 8 46. 9 31. 7 29. 7	27. 8 46. 0 49. 4 65. 6 73. 2 77. 6 77. 7 71. 6 57. 0	56 73 77 85 93 98 103 102 95 83 71 66 103	-16 -8 22 25 40 48 52 54 44 27 19 17	18 33 36 51 54 62 65 58 48 32 29	23 18 34 36 48 56 58 64 57 48 32 30 42	21 22 35 36 50 55 61 66 58 48 32 33 43	% 88 82 77 70 71 65 71 78 81 88 85 88 79		68 61 57 52 48 50 63 62 72 69 77	In. 0. 129 . 112 . 198 . 222 . 389 . 436 . 569 . 618 . 497 . 352 . 190 . 168 . 323	. 120 . 208 . 222 . 350 . 459 . 504 . 604 . 479 . 351 . 192 . 177	In. 0. 128 . 134 . 212 . 227 . 380 . 444 . 550 . 635 . 505 . 366 . 196 . 197	3. 54 1. 46 2. 07 1. 17 2. 77 1. 98	. 41 1. 34 1. 99 . 50 1. 15 . 44 1. 10 . 59 1. 08 1. 64 . 79	.0	7. 4 7. 0 7. 2 3. 4 3. 6 4. 0 4. 6 4. 0 6. 3	5. 9 6. 8 7. 7 4. 7 3. 8 4. 1 5. 0 4. 6 5. 3 6. 3 6. 4	4. 8 4. 4 6. 3 4. 0 4. 6 4. 9 4. 2	6. 1 6. 5 7. 4 4. 1 4. 3 4. 5 5. 4 4. 4 5. 5 6. 4
											SACC 5' N.;		•														
January February March April May June July August September October November December. Year	30. 02 29. 91 30. 02 29. 96 29. 87 29. 94 29. 94 29. 94 29. 99 30. 11 30. 09	30. 37 30. 20 30. 29 30. 20 30. 13 30. 15 30. 12 30. 08 30. 21 30. 39 30. 42	29. 47 29. 64 29. 56 29. 61 29. 66 29. 35 29. 77 29. 73 29. 76 29. 88	78. 1 76. 3 66. 4 53. 5 50. 9	54. 9 55. 0 65. 3 67. 7 76. 5 83. 4 83. 5 84. 2 83. 3 76. 1 63. 1 57. 9	55. 0 54. 1 63. 6 66. 8 75. 2 81. 1 81. 7 81. 3 74. 0 61. 7 56. 5	60. 3 59. 7 68. 2 71. 5 79. 2 86. 3 86. 3 86. 8 85. 9 78. 7 67. 4 62. 0 74. 4	45. 0 56. 1 59. 4 68. 2 74. 7 75. 1	62. 2	73 70 77 79 88 94 91 94 91 86 80 72	24 28 40 42 62 67 67 68 71 51 35 34	46 44 54 58 64 71 74 73 71 61 46 48	48	48 49 55 58 65 70 73 74 72 62 48 52 60	88 89 88 85 79 81 84 86 84 83 78 91	82 78 74 73 67 68 74 70 64 58 81	84 77	0. 355 . 317 . 443 . 499 . 605 . 760 . 827 . 820 . 763 . 559 . 340 . 356	0. 384 . 356 . 471 . 507 . 797 . 772 . 842 . 809 . 796 . 585 . 353 . 402	. 368 . 463 . 509 . 621 . 750 . 814 . 845 . 781 . 586 . 373 . 404	6. 40 2. 78 6. 03 6. 13 1. 48 4. 82 6. 81 2. 25 4. 18 2. 72	2. 86 1. 04 1. 58 2. 41 1. 04 2. 09	T 0.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4. 3 4. 3 5. 0 2. 3 5. 3 2. 5 2. 9 4. 0 4. 8	5. 4 4. 8 4. 1 4. 7 2. 0 5. 6 4. 1 3. 8	5. 2 6. 1 5. 9 4. 5 4. 6 2. 8 7. 7 5. 4 4. 9 2. 5 5. 5 7 4. 9	5. 7 5. 5 4. 3 4. 8 2. 3 5. 9 3. 9 4. 0 3. 4 4. 3
									[φ=		ORI.				7.]												
January February March April June July August September October November December Year	29. 32 29. 36 29. 40 29. 48 29. 50	29, 79 29, 65 29, 74 29, 77 29, 60 29, 75 29, 65 29, 78 29, 86 29, 97 29, 88	28, 69 28, 77 29, 00 28, 92 28, 66 29, 01 29, 08 28, 98 28, 92 28, 92 28, 67	71. 7 63. 3 47. 1 31. 9 29. 9	20. 0 19. 6 47. 3 54. 1 75. 5 80. 5 94. 2 88. 1 76. 2 60. 6 42. 1 37. 6		24. 6 24. 2 52. 3 58. 6 78. 7 86. 0 98. 9 92. 8 80. 4 64. 0 46. 7 42. 3 62. 5	9.8 5.5 31.5 37.8 55.4 57.9 69.7 67.8 60.6 44.3 29.0 25.4 41.2	17. 2 14. 8 41. 9 48. 2 67. 0 72. 0 84. 3 80. 3 70. 5 54. 2 37. 8 33. 8	53 64 78 87 89 105 113 106 96 82 68 62 113	-20 -14 17 18 43 53 54 47 27 15 2 -20	12 7 29 33 52 53 62 63 59 44 28 27	14 12 30 35 53 55 62 64 60 47 30 28	62 64 61 47 30 28	73 66 65 76 87 89 85 87	43 35 47 60 63 62 68	80 76 60 53 51 42 39 52 72 74 68 77	0. 090 . 074 . 164 . 210 . 403 . 416 . 577 . 590 . 521 . 305 . 162 . 156	. 172 . 225 . 417	. 091 . 181 . 223 . 400 . 408 . 559 . 605 . 558 . 344 . 177	1. 64 1. 72 . 45 1. 24 2. 27 10. 58 3. 35 1. 18 3. 26	. 63 . 96 . 37 . 89 . 62 2. 97 1. 76 1. 12 1. 54	7. 3 . 9 3. 0 . 0	3. 9 5. 4 3. 8 3. 9 2. 6 2. 4 4. 7 4. 7 4. 0 5. 6	6. 2 5. 8 5. 2 4. 4 4. 3 3. 5 1. 8 2. 5 5. 6 6. 0 3. 9 5. 3	5. 9 4. 9 4. 2 4. 0 3. 2 2. 5 1. 9 5. 2 4. 3 3. 4 4. 7	5. 6 5. 0 4. 8 4. 0 3. 4 2. 5 2. 6 5. 2
											DEL 'N.;		,														
January February March April May June July August September October November December. Year	29, 92 29, 94 29, 81 29, 78 29, 91 29, 98 29, 99 30, 14	30. 41 30. 28 30. 42 30. 51 30. 16 30. 22 30. 23 30. 31 30. 41 30. 51 30. 61	29. 27 28. 94 29. 31 29. 49 29. 45 29. 50 29. 60 29. 49 29. 14 29. 31 29. 39	27. 2 24. 0 43. 6 46. 0 60. 8 67. 9 73. 4 72. 4 65. 5 54. 7 40. 8 36. 6	31. 0 29. 0 52. 1 53. 8 70. 8 75. 6 81. 8 81. 3 73. 7 63. 4 47. 6 42. 3	31. 2 29. 9 49. 3 51. 7 67. 4 72. 7 77. 8 77. 1 69. 1 58. 7 43. 8 41. 4	36. 3 34. 1 56. 8 59. 0 76. 2 80. 3 86. 1 84. 5 77. 7 66. 6 51. 1 46. 7	23. 5 21. 2 39. 8 41. 3 55. 5 63. 3 68. 5 67. 6 61. 3 50. 5 35. 5 35. 5 46. 7	29. 9 27. 6 48. 3 50. 2 65. 8 71. 8 77. 3 76. 0 69. 5 58. 6 43. 5 39. 6	52 57 75 83 93 93 104 95 91 78 77 62	-2 4 24 31 45 55 62 58 47 29 20 15	19 15 37 36 48 58 62 64 58 48 31 30	18 16 39 36 48 56 60 63 58 48 30 31	48 58 64 63 59 48 30 32	67 77 68 65 72 69 77 79 67 75	59 64 54 46 55 50 55 59 59 51 65	61 67 57 53 62 63 63 72 67 58 70	0. 119 . 097 . 234 . 221 . 355 . 496 . 559 . 616 . 502 . 368 . 192 . 177	. 263 . 233 . 350 . 470 . 534 . 590 . 491	. 111 . 249 . 225 . 358 . 493 . 598 . 587 . 512 . 359 . 191	6. 44 3. 46 4. 02 2. 25 1. 67 3. 96 2. 60 3. 30 3. 72 1. 76 . 69 4. 83 38. 70	2. 14 1. 59 1. 14 . 91 . 93 1. 82 . 99 1. 18 1. 87 . 67 . 38 1. 36 2. 14	4. 9 9. 2 T T .0 .0 .0 .0 .0 .0 .7 .3		6. 1 6. 7 6. 8 6. 7 4. 2 6. 0 5. 7 4. 8 6. 2 5. 6 6. 6 6. 2	4. 7 5. 4 5. 5 6. 6 3. 3 5. 9 6. 6 5. 4 4. 5 4. 7 5. 8	6. 4 3. 4 5. 7

PARKERSBURG, W. VA.

-							[H	=615	ft.; ]					,	h <sub>r</sub> =6		ha=	84 ft	.)										
							Wind	i												1	Vum	ber (	of da	ys					
		Bys	elf-re	egister		Nı	ımbe	r of	wind	s, 8 a	ı. m.	and	8 p.	m.				Pre		Sı	now		F	og	mı	axi- im ap.	1re 32°		lec- city
Month	Average hourly ve-	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	T or more	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperature or below	Thunderstorm	Aurora
January February March March April May June July August September October November December	7.5	SW. SW. NW. SW. NW. NW. SE. SE. SE. SE.	Mi. 35 30 28 34 23 30 30 27 20 21 27 21	SW. NW NW SW. NW NW NW NW NW	1 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	6 6 7 10 11 7 16 4 4 4 5 5	6 1 8 2 7 5	2 0 2 2 1 1 3 0 0 2 17	14 13 8 21 19 18 9	7 5 9 4 7 6 8 10 4 8 10 5 83	12 16 6 4 14 4 6 13	8 4 4 1 1 2 6 6 3	7 11 16 10 19 14 12 9 6 12 11 10	0 0 0 0 0 2 1 0 0 4 2 2 2	3 7 7 7 3 17 12 13 11 15 10 8 8	6 9 6 10 6 14 12 10 9 10 10 9	22 13 18 17 8 4 6 10 6 11 12 14	17 15 17 12 7 5 10 9 9 11 6 11	13 8 6 5 8	13 12 5 5 0 0 0 0 0 0 6 2 43	9 10 4 3 0 0 0 0 0 0 1 1	0 0 0 0 1 1 1 0 0 0 0	10 8 7 7 9 5 7 8 12 15 9 17	0 0 0 1 0 1 1 1 1 1 5 2 3	12 14 0 0 0 0 0 0 0 0 0 0 2 1	0 0 0 0 5 9 13 12 10 0 0 0 49	25 12	0 0 4 6 5 4 10 8 3 2 0 0	0 0 0 0 0 0 0 0 0 0 0
							[H=	:11 ft	.; Нь		INSA					ft.: }	1 = 1	85 ft.	.1									,	
January February March April May June July August September October November December	13. 3 12. 8 12. 1 11, 1 12. 4 9. 4 10. 2 11. 0 12. 2 12. 7	N. N. SE. SE. SE. SW. SE. NE. NE. NE.	50 34 35 40 32 53 55 28 27 24 30 32 55	S. N.W. S. S.E. S.E. N. N.W. N. W. S.	5 2 3 3 1 1 6 6 0 0 0 0 1 1 222	12 17 4 9 8 9 3 9 6 16 18 15	11 14 5 7 11 8 5 12 18 22 11 20	6 5 7 6 14 3 4 6 4 3 4 10	9 8 12 10 14 5 4 9 6 3 6 6	6 3 7 9 2 8 10 7 5 2 1 3 63	5 7 9 10 6 15 23 9 9 5 2 1	4 0 6 2 2 8 4 6 7 3 8 3	9 4 11 7 3 3 9 3 5 8 10 4 76	0 0 1 0 2 1 0 1 0 0 0 0 0	9 10 10 15 10 22 4 15 14 18 14 8	9 7 8 7 15 8 19 13 15 9 8 11 129	13 12 13 8 6 0 8 3 1 4 8 12 8 8	14 12 10 11 8 6 13 13 9 5 4 11	12 10 6 8 7 6 9 11 7 3 4 9	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	000000000000000000000000000000000000000	0 1 0 1 0 0 1 0 0 0 1 0 0 0 1 0 0 4	11 6 8 4 1 1 0 0 0 1 0 7 39	8 6 5 1 1 1 0 0 0 0 4 27	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 4 3 5 2 0 0 0	0 0 0	8 1 3 9 6 7 15 16 12 3 1 1	0 0 0 0 0 0 0 0 0 0 0
							[H=	=602	ft.; B	[b=6		ORI.	,		r=4 1	ft.; h	a=45	ft.]											
January February March April June July August September October November December Year Year March Marc	6. 6 6. 7 5. 5 5. 9 6. 1 6. 1 8. 0	W. W. SE. NW. S. NE. NE. SE. S. S. S.		NW. W. NW. NW. SW. NW. NW. NW. NW.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 13 7 7 5 10 8 5 5 6 6 6 6 8 8	8 11 4 4 7 19 15 11 17 5 6 3	5 4 5 8 3 1 7 7 5 0 2 7	3 7 11 10 12 10 4 12 11 5 6 11	6 3 7 10 18 7 5 15 12 24 14 16	7 1 3 3 5 9 10 4 3 5 6 6	21 15 14 5 6 1 8 3 2 4 11 3	8 4 10 13 5 1 5 4 9 10 9	0 1 0 1 2 0 0 1 4 0 1	10 10 13 15 17 15 20 20 13 9 15 14	9 6 6 6 5 11 11 9 5 11 8 6 93	12 13 12 9 9 4 0 2 12 11 7 11	13 12 10 12 11 4 4 10 12 9 3 8	6 9 5 2 3 9 12 7 2 6	19 13 6 6 0 0 0 0 1 3 3	12 10 3 3 0 0 0 0 0 0 0 0 1 1	0 0 0 0 0 1 0 0 0 0 0 0	5 4 1 5 1 0 0 2 10 13 5 7	2 0 0 0 0 0 0 0 1 0 1 0 0 4	16 21 0 1 0 0 0 0 0 0 0 0 1 4	0 0 0 0 0 11 22 21 8 0 0 0	0 6 22 25	0 1 3 2 5 5 4 12 10 4 1 1	0 0 0 0 0 0 0 3 0 0 0 0 0 0 0
						[:	H=2	6 ft.;	H <sub>b</sub> =		(LA) ft.; h					ft.; h	a=36	7 ft.	]										
February March April April May June July August Cottober November December	11. 7 12. 9 13. 9 13. 3 12. 3 10. 8 10. 9 12. 2 11. 8 14. 3 3. 4	NW. W. S. S. S. S. S. S. S. S. S. S. S. S. S.	29 41 46 34 33 40 32 42 34 40 37	SW. N. SE. S. SW. S. NW. SW. NW. NW. SW.	7 0 3 3 1 1 4 1 2 1 4 1 1 2 1 2 8	5 9 6 6 11 14 11 6 7 11 11 14 11	3 7 9 6 2 10 2 8 10 7 5 14 83	7 6 7 4 2 6 4 7 4 6 1 3	3 2 6 2 2 6 4 10 3 2 1	4 2 14 11 15 8 14 8 9 5 1	8 10 9 8 17 10 15 17 13 14 15 11 147	9 5 11 3 4 4 10 4 8 5	14 13 6 12 10 2 8 2 4 4 4 16 10 00 1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9 8 5 6 17 12 9 8 10 11 10 9	10 8 9 11 11 5 13 13 13 8 8 10 8	12 13 17 13 3 13 9 10 12 12 10 14	9 14 13 7 11 11 11 10 8 5 12	7 11 9 6 7 8 9 8 7 4 10	11 8 3 2 0 0 0 0 0 0 0 4 4 4	9 5 2 1 0 0 0 0 0 0 0 1 1 18		10. 7 8 2 1 2 1 4 7 7 14 7 7 12 75	3 0 1 0 0 0 0 0 1 5 0 3 1 1 3	11 13 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1	0 0 0 0 2 1 9 9 1 0 0 0 2 1 2 2 1 2 2	11	0 0 0 0 2 5 4 8 8 1 0 0 0 0 8	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

 $[\phi = 33^{\circ}28']$  N.;  $\lambda = 112^{\circ}00'$  W.]

									[φ=	33-20	3′, N.;	^=	112-		···												
	I	ressu	re			Г	'empe	erature	3										]	Moist	ıre						
		Extr	emes			Me	ean			Exti	emes		Dew			elati mid:		Vapo	or pre	ssure	Pre	cipita	tion		Clou	dines	S
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
January February March April May June July August September. October November December	28. 79 28. 72 28. 63 28. 63 28. 64 28. 64 28. 64 28. 74 28. 90 28. 86	29. 07 29. 04 29. 07 28. 80 28. 83 28. 82 28. 91 28. 86 28. 90 29. 29 29. 18	28. 44 28. 60 28. 55	46. 5 52. 6 58. 9 66. 5 76. 0 81. 6 .80. 4 72. 0 61. 6 51. 5 43. 0	83. 6 93. 1 100. 4 101. 0 98. 0 92. 5 83. 0 71. 8 61. 7	94. 4 102. 3 102. 5 99. 8 92. 8 81. 9 69. 7 60. 2	106, 1 103, 2 97, 0 87, 1 75, 5 65, 7	44. 5 49. 9 57. 5 65. 2 75. 0 80. 2 79. 0 70. 1 59. 2 48. 1 40. 6	61. 8 53. 2	100 87 75	30 34 38 42 55 58 68 74 53 48 38 33	43 60 65 53 43 35 34	61 51 42 31 33	27 34 27 25 28 39 53 58 49 43 34 36 38	% 566 70 50 35 35 35 55 74 52	% 26 38 20 13 12 14 25 31 26 27 26 37 25	35 18 12 10 12 22 27 24 28	In. 0. 148	In. 0. 141 215 158 145 178 266 465 548 392 273 193 193	. 147 . 136 . 153 . 247 . 428 . 485 . 368 . 282 . 207 . 217	In. 0.80 1.01 .50 .14 T T 2.49 .32 .43 .13 .35 2.12 8.29	. 12 T T 2. 14 . 12 . 43 . 13 . 27 . 94	In. 0.0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .	3. 0 2. 0 1. 4 1. 0 3. 2 4. 0 1. 5 1. 7 2. 0 2. 7	3. 7 4. 3 2. 7 2. 7 1. 6 1. 4 1. 6 2. 2 3. 1 4. 8 2. 6	4. 9 4. 3 3. 8 2. 9 2. 4 1. 7 3. 4 2. 8 2. 6 2. 5 2. 9 4. 8	4. 1 3. 3 2. 6 1. 9 1. 1 2. 8 2. 1 2. 5 2. 7 4. 5
											BBUI ' N.;				V.]												
January February. March April May. June July August. September. October November. December.	28. 67 28. 50 28. 65 28. 72 28. 58 28. 62 28. 68 28. 72 28. 72 28. 70 28. 82	29. 05 28. 90 29. 08 29. 16 28. 87 29. 01 29. 01 28. 95 29. 08 29. 21 29. 20	27. 97 28. 06 28. 35 28. 24 28. 35 28. 45 28. 39 28. 07 28. 14 28. 15	36. 3 42. 0 59. 1 64. 5 69. 2 68. 2 61. 0 48. 9 34. 1 31. 2	25. 9 45. 8 48. 4 70. 9 75. 0 82. 7 80. 8 73. 8 59. 9 41. 1 38. 1	24.8 43.9 46.9 66.7 71.8 78.1 75.7 69.6 54.9 38.5 36.9	55. 0 75. 0 80. 3 86. 6 84. 9 77. 9 63. 4 45. 9 43. 3	14. 0 33. 3 35. 9 52. 2 58. 4 63. 3 64. 3 57. 6 45. 3 30. 4 28. 3	42. 2 45. 4 63. 6 69. 4 75. 0 74. 6 67. 8 54. 4 38. 2 35. 8 51. 0	CA.	-16 -8 15 21 37 49 52 51 45 27 14 10 -16	14 31 33 46 52 57 62 55 44 28 26 39	IDA			78 68 62 57 41 46 41 53 54 61 62 68 58	73 68 61 49	0. 109 . 092 . 183 . 202 . 329 . 408 . 477 . 563 . 454 . 312 . 166 . 148		. 192 . 200 . 326 . 414 . 459 . 569 . 453 . 315 . 168 . 158	2.30	1. 15 1. 80 1. 02 . 39 . 44 1. 45 1. 78 3. 01 1. 97 1. 86 . 97	10. 7 9. 6 1. 6 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0	8. 7 7. 2 8. 2 7. 3 4. 8 4. 6 4. 9 5. 0 6. 0 5. 7 7. 3 7. 6	8. 7 6. 8 7. 5 8. 4 5. 6 5. 3 6. 3 6. 3 6. 8 7. 4 6. 7	7. 3 5. 4 6. 4 7. 8 5. 5 6. 2 5. 8 4. 9 5. 6 6. 8 6. 0	8. 3 6. 5 7. 6 7. 8 4. 8 5. 6 6. 0 5. 2 6. 0 6. 6 7. 2
January February March April May June July August September. October November. December	25. 30 25. 42 25. 46 25. 44 25. 44 25. 48 25. 50 25. 49 25. 55 25. 72 25. 46	25. 85 25. 81 25. 83 25. 69 25. 65 25. 66 25. 78 25. 79 25. 99 25. 83	24. 73 24. 78 25. 02 25. 11 25. 12 25. 24 25. 32 25. 02 25. 14 25. 14 25. 02		29. 0 39. 8 56. 7 68. 8 75. 1 85. 6 79. 9 69. 0 59. 5 42. 8 35. 5	58. 9 40. 4 34. 2	74. 8 64. 7 49. 2 39. 0	19. 8 26. 6 38. 4 44. 9 53. 8 62. 8 57. 9 44. 2 37. 1 22. 5 23. 7	24. 0 27. 0 35. 2 49. 9 59. 5 67. 2 76. 6 71. 8 59. 5 50. 9 35. 8 31. 4 49. 1	45 48 57 80 89 98 100 95 87 83 61 52	-7 -6 16 12 32 36 53 44 28 25 12 7 -7	17	21 20 24 30 30 39 46 45 30 31 23 24	21 21 25 31 29 39 45 43 28 30 22 24	84 80 69 65 52 58 52 57 52 60 76	68 53 39 27 32 28 32 25 37 45 61	69 57 40 25 32 30 28 22 35 46 66	0. 098 . 111 . 116 . 169 . 182 . 256 . 324 . 304 . 174 . 153 . 104 . 118	.111 .125 .172 .174 .245 .322 .316 .172 .174 .122 .127	0. 116 . 114 . 133 . 173 . 161 . 242 . 311 . 293 . 157 . 164 . 116 . 128	2. 46 2. 04 1. 48 . 97 1. 03 2. 44 1. 92 . 20 . 53 . 09 . 81 14. 68	. 29 . 76 . 37 . 35 . 65 1. 75 . 36 . 16 . 47 . 06	16. 5 10. 0 4. 0 T . 0 . 0 . 0 . 0 T . 8 6. 0	}	4. 5 4. 2 2. 6 2. 1 3. 8 3. 2 6. 9	5. 3 3. 5 4. 6 6. 1 3. 4 1. 6 2. 6	
											RTI N.;		-														
January February March April May June July August September October November December Year	29. 91 30. 02 29. 93 29. 87 29. 94 29. 94 29. 92 30. 01 30. 16 30. 09	30. 21 30. 39 30. 14 30. 06 30. 11 30. 12 30. 02 30. 26 30. 45 30. 40	29. 64 29. 51 29. 60 29. 63 29. 76 29. 77 29. 75 29. 82 29. 85 29. 69	63. 7	70. 5 71. 4 79. 0 88. 3 86. 5	83. 6 84. 8 81. 7 71. 3	73. 1 75. 0 81. 7 91. 0 90. 4 91. 3 88. 4 78. 5 67. 7 61. 5	57. 4 57. 8 68. 8 76. 1 75. 8 76. 3 75. 0 60. 4 48. 5 47. 5	51. 2 51. 2 65. 2 66. 4 75. 2 83. 6 83. 1 83. 8 81. 7 69. 4 58. 1 54. 5	73 74 83 86 87 98 95 97 96 88 82 72 98	26 45 38 62 68 70 70 59 49 34 32		53 66 72 72 71 57 46	71 73 73 73 60 47	89 84 86 77 83 85 87 87	64 63 66 56 56 71 -	65 71 69 75 70 65	. 471 . 474 . 654 . 773 . 835 . 849 . 823 . 503 . 325 . 351	.317 .511 .434 .644 .720 .798 .798 .778 .490 .341	0. 769 . 810 . 823 . 817 . 544 . 345	5. 60 7. 26 1. 31 3. 27 3. 46	1. 43 1. 21 . 65 1. 29 6. 31 . 87 5. 39 2. 19 3. 26 . 83 1. 49 1. 06 6. 31	0.0	6. 1 5. 8 4. 9 6. 3 2. 2 4. 5 3. 8 4. 0 3. 8 5. 1	5. 6 5. 9 6. 1 4. 2 4. 7 6. 3	2. 9 5. 6 5. 3 5. 0 3. 1 3. 7	5. 4 6. 4 5. 6 4. 5 5. 9 3. 0 5. 5 5. 1 5. 4 3. 9 5. 1 6. 1

<sup>&</sup>lt;sup>‡</sup> Observations taken at Airport.

	$[H=1,083 \text{ ft.; } H_b=1,107 \text{ ft}$ Wind $By \text{ self-register} \qquad \text{Number of winds, 8 a. m. ar}$															=37 f	t.; h	a = 51	ft.]										
	H=1,083 ft.; H <sub>b</sub> =1,107 ft   Wind																			1	Num	ber	of da	ıys					
		Bys	self-re	egister		Ni	ımbe	r of v	wind	s, 8 a	Tation   Show   Fog   min   Show   Fog   min   Show   Sh				axi- um mp.	ure 32°		lec- city											
Month	ly	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	with 32 or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	OL	inch or	O.	inch or melted	Hail	Light	Dense	or	90° or above	Minimum temperatu	Thunderstorm	Aurora
January February March April May June July August September October November December	4. 9 5. 5 6. 4 6. 5 6. 7 6. 5 6. 6 5. 8 5. 8 5. 4 5. 1 4. 1	E. E. E. E. E. E. E.	18 26 35 24 26 27 41 38 35 23 22 15	SW. SW. N. NE. NE. SW. NW. SW. NE. SE.	0 0	4 3	1 0 1 3 5 2 1 4 8 7	22 23 18 18 20 20 18 20 27 18 19	3 3 2 2 2 3 4 3 5	3 6 4 3 3 6 5 3 3 0 2	5 5 6 6 0 2 4 4 2 1	14 12 11 14 16 11 14 7 8 6 8	6 7 11 10 11 5 6 7 4 3 6	2 1 0 2 5 7 4 6 17	15 21 19 23 25 18 21 22 20 18 15	5 2 9 7 5 13 10 5 6 9 5	0 0 3 5 3 11	1 4 5	1 3 5	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	000000000000000000000000000000000000000	0 1 19 27 28 31 31 26 13	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 2 1 1 0 8 10 3 2 2 0 30	0 0 0 0 0 0 0 0 0 0 0
						Г	H = 1	248 f	t · H							20 f+	. h	- 54	 *4 ]										
	11. 2 12. 0 12. 1 10. 0 9. 6 8. 7 9. 1 9. 4 10. 0 12. 8	SW. SW. NW. NW. NW. SW. SW. SW.	45 34 49 34 32 34 43 34 34 34	SW. SW. NW. NW. NW. NW. NW. NW. W.	3 2 2 7 7 2 1 1 2 3 0	2 3 6 2 6 6 10 4 9 4 3	4 8 6 4 3 10 5 7 8 7	3 3 5 2 3 2 2 3 3 2 4	9 5 7 8 2 7 3 7 8 9 4	8 7 11 8 9 9 14 16 15 12 12	19 12 8 9 13 10 12 11 9 11	11 10 6 12 9 5 3 9 1 7 12 9	5 10 13 15 17 11 18 7 6 7 14 9	1 0 0 0 0 0 0 0 0	1 5 4 3 12 11 7 7 7 10 8 6 5	7 10 8 6 12 10 15 15 13 12 8 8	23 14 19 21 7 9 9 9 7 11 16 18	16 16 18 15 6 11 7 11 8 14 9	16 10 15 11 6 8 5 8 7 12 4 7	15 10 9 0 0 0 0 0 2 14 11	12 4 0 0 0 0 0 0 5 6	0 0 1 0 0 0 0 0 0	11 16 9 3 13 10 12 9 12 10 11	6 4 2 0 1 0 3 2 4 0 7	16 2 0 0 0 0 0 0 0 0 3 3	0 0 0 0 0 2 11 6 3 0 0	28 26 17 11 0 0 0 0 4 18 22 126	1 0 1 2 5 9 7 9 3 3 0 0 40	0 0 0 0 0 0 0 0 0 0 0 0 0
						[H	=4,4	68 ft.	; H							2 ft.;	ha=	:68 ft	.]										
January February March April May June July August September October November December Year	10. 2 9. 1 9. 6 8. 1 8. 4 7. 9 7. 9 7. 2 6. 2 10. 2	W. SW. SE. SE. SE. SE. SE. SE. SE. SE. SE. SE	32	S. S	1 0 0 0 0 0 0 1 0 0 0 0 1 0 0	4 4 2 1 4 3 4 6 10 11 7 3 59	1 0 0 1 2 1 2 2 0 0 3 1	8 0 0 1 1 0 2 1 4 8 3 1	11 11 20 22 28 24 27 26 16 14 16 23	7 11 5 11 8 5 11 12 9 7 6 6 6	19 14 11 9 10 3 4 4 4 3 7 18	6 13 9 4 11 6 5 9 10 10 8	7 7 4 6 6 7 5 8 9 8 2	0 1 0 0 0 0 0 1 0 0 0	15 12 10 18 22 19 19	6 11 13 11 9 14 8 6 7 8 11	21 13 8 5 9 7 5 2 5 3 16	20 11 10 6 9 13 9 2 3 4 12	16 7 8 3 5 5 9 2 2 0 9	20 12 3 2 0 0 0 0 0 2 6 15	18 9 2 0 0 0 0 0 4 10	0 0 1 1 0 1 0 0 0 0	0 0 0 1 0 0 2 2 2	0 1 0 0 0 0 0 0	9 1 2 0 0 0 0 0 0 0 1 4	0 0 0 0 0 0 10 19 5 0 0 0 0	0 3 8 29 27	0 0 0 4 2 7 14 10 2 0 0 0	0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0
							H=:	5ft.;								: h.=	= 106	ft.l			,								_
August September October November December	9. 2 8. 3 9. 1 8. 1 7. 7 8. 0 6. 1 7. 7 7. 5 9. 6 0. 8	N. N. S. S. S. S. S. S. S. S. N. N. E. S.	35 29 26 27 25 34 21 25 21 27 34 35	NW. N. W. N. W. N. E. N. W. S. N. W.	0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7 8 2 9 7 6 7 7 2 22 22 7	7 4 2 1 9 3 3 6 10 4 5 4	4 10 7 5 7 5 4 8 7 9 10 8	1 2 4 3 4 8 4 10 12 8 4 2	4 1 5 6 3 27 23 19 21 5 8 3	0 1 1 2 0 2 11 4 0 0 0 0 0	1 2 6 3 0 5 5 1 0 4 5 5	7 0 3 0 1 3 2 7 7 9 6 2	0 1 1 1 0 1 3 0 1 1 1 0 0	13 6 9 13 4 17 8 9 7 17 11 9	5 6 12 12 18 12 16 17 18 9 9 6	13 17 10 5 9 1 7 5 5 5 10 16	14 12 8 8 8 15 2 9 12 11 16 1 3 6 8	8 5 5 4 2 9 1 0 3 5 7	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8 4 6 1 0 1 4 4 5	5 3 4 0 0 0 0 0 0 1 4	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 18 19 24 14 0 0 0 75	0 0 0 0 0 0 0 1 0 1	4 1 0 1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

<sup>&</sup>lt;sup>1</sup> Observations taken at airport.

 $[\phi = 43^{\circ}39' \text{ N.: } \lambda = 70^{\circ}15' \text{ W.}]$ 

									[φ=	43°39	9′ N.;	λ=	70°1	5′ V	V.]												
	F	ressui	re			Т	'empe	rature	3										I	Aoistu	ıre						-
		Extr	emes			Me	ean			Extr	emes		Dew			lativ nidi		Vapo	r pre	ssure	Pred	ipitat	ion	C	Cloud	lines	3
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	0	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
JanuaryFebruary	29. 88 29. 98 29. 94 29. 85 30. 11	30. 20 30. 40 30. 52 30. 58 30. 75	29. 51 29. 47 29. 03 29. 10 29. 19		45. 7 59. 6 66. 9 70. 8 71. 4 63. 3 54. 9 39. 1 33. 0	525. 3 22. 2 38. 2 43. 0 55. 3 62. 3 67. 3 66. 3 59. 0 50. 2 35. 9 32. 5	27. 7 44. 5 48. 8 63. 9 70. 9 74. 7 74. 8 66. 4 58. 6 43. 9 39. 1	58. 5 59. 5 52. 3 42. 2 27. 9 22. 8	66. 6 67. 2 59. 4 50. 4 35. 9 31. 0	*** 48 43 62 74 92 78 96 95 88 75 64 54 96	-1 -1 10 28 32 45 51 53 39 25 11 8	39 23 20	43 53 56 55 49 38 25 21	14 12 28 31 43 51 55 56 48 36 24 22 35	% 68 68 78 69 67 73 70 75 72 66 70 71	68 61 57 64 62 60 61 57 56	% 62 62 62 70 64 65 69 68 70 61 63 65	In. 0. 089 0. 069 172 175 294 396 453 441 364 258 138 125	In. 0. 092 . 081 . 183 . 189 . 295 . 410 . 451 . 372 . 256 . 151 . 122 . 254	. 230 . 143 . 127	7. 48 4. 54 1. 41 2. 68 . 76 2. 05 2. 02 2. 94 1. 75	1. 38 1. 44 .51 1. 18 .38 .63 1. 16 .91 .86 2. 49	29. 1 11. 7 3. 4 .0 .0 .0 .0 .0 .0 .0 .2. 9 2. 4	4. 2 4. 6 5. 3 5. 6	5. 1 4. 3 5. 3 6. 6 4. 1 3. 8 3. 8 4. 1 4. 3 5. 3 5. 3	3. 9 3. 8 4. 5 5. 4 4. 1 4. 5 4. 1 2. 8 2. 3 4. 4 4. 9	4.3 4.0 5.4 5.9 4.7 4.0 3.8 4.3 3.5 5.0 4.5
											LAN													,	<del></del>	· ·	
January February March April May June July August September October November December Year Year March May	29. 80 29. 95 29. 93 29. 84 29. 81 29. 85 29. 85 29. 87 29. 95 30. 13 29. 88	30, 31, 30, 35, 30, 52, 30, 39, 30, 11, 30, 04, 30, 27, 30, 25, 30, 45, 30, 42	29. 10 29. 50 29. 46 29. 29 29. 45 29. 51 29. 55 29. 58 29. 58 29. 76 29. 24	47. 5 52. 7 57. 3 58. 4 59. 4 55. 1 51. 1 40. 3 42. 3	47. 9 58. 5 65. 6 69. 0 71. 9 73. 3 67. 0 62. 7 49. 3 44. 9	45. 6 35. 5 49. 8 63. 0 68. 7 71. 6 76. 7 79. 4 71. 5 66. 1 49. 9 45. 4 60. 3	38. 9 52. 5 64. 5 70. 7 73. 8 77. 7 80. 4 73. 2 68. 2 53. 0 47. 3	39. 8 28. 9 38. 1 46. 6 51. 7 56. 5 57. 8 58. 6 53. 7 49. 1 38. 1 40. 2 46. 6		55 56 67 85 89 85 88 97 88 88 64 58	27 14 31 31 41 51 53 52 44 36 30 27	37 24 36 43 47 53 54 54 50 47 35 39	48 37 40	37 27 37 43 47 53 54 53 50 48 38 41	82 73 84 86 82 85 84 82 82 87 83 89	66 67 58 54 56 53 51 56 60 65 84	69 63 51 50 54 46 42 49 54 66 84	0. 224 1. 145 1. 210 1. 286 1. 326 1. 400 1. 414 1. 360 1. 323 1. 209 1. 246 1. 296	0. 229 . 151 . 222 . 284 . 338 . 390 . 406 . 415 . 362 . 331 . 226 . 256 . 301	. 160 . 222 . 284 . 331 . 408 . 414 . 408 . 367 . 337 . 234 . 260	8. 55 4. 73 3. 10 . 80 3. 72 2. 43 . 40 . 07 1. 41 . 36 8. 28 34. 29	1. 25 1. 29 . 31 1. 13 1. 03 . 17 . 06 . 94 . 23 . 33 2. 35	.0	8. 0 7. 8 6. 3 9. 0 6. 5 6. 8 3. 7 4. 6 4. 5 3. 6 2. 9 8. 2 6. 0	7. 8 8. 5 7. 7 6. 9 6. 2 6. 8 4. 0 3. 4 3. 5 3. 7 3. 2 9. 7 6. 0	8. 0 8. 5 8. 1 7. 5 6. 3 6. 6 3. 1 1. 6 2. 8 4. 0 3. 4 9. 2 5. 8	8. 1 8. 8 8. 0 7. 6 6. 2 6. 7 3. 7 3. 5 3. 8 5. 1 4. 3 9. 5
											IDEI V N.;																
February March April May June July August September October November December	29. 87 29. 75 29. 83 29. 84 29. 75 29. 71 29. 84 29. 93 29. 91 29. 84 30. 06	30, 30, 24 30, 35 30, 43 30, 13 30, 11 30, 16 30, 29 30, 43 30, 48 30, 58	28. 96 29. 23 29. 33 29. 30 29. 36 29. 53 29. 44 29. 08 29. 18	65. 7 69. 3 68. 9 60. 6 51. 2 37. 1 32. 9	65. 5 72. 8 77. 0 77. 9 68. 8 59. 9 43. 1 38. 5	28. 7 26. 0 43. 3 46. 0 59. 0 66. 9 71. 6 70. 4 62. 7 53. 6 39. 8 36. 7	30. 7 51. 9 53. 5 70. 6 75. 8 81. 2 81. 4 71. 8 62. 5 47. 6 43. 8	21. 3 16. 1 35. 6 37. 2 49. 3 58. 3 61. 9 55. 1 45. 5 31. 2 27. 5 41. 7	67. 0 71. 6 71. 6 63. 4 54. 0 39. 4		6 4 15 29 35 53 55 53 39 25 13 10	16 12 33 32 44 55 58 60 53 43 29 26	32 43 54 58 59 53 44 26 28	19 15 34 33 45 56 60 61 54 44 27 29	68 62 70 68 74 77 75 71 76	56 60 54 48 55 54 54 58 59 52 66	61 71 62 62 70 69 74 76 71 61 73	0. 104 . 084 . 204 . 192 . 312 . 441 . 488 . 526 . 423 . 308 . 180 . 161	. 091 . 209 . 196	0. 118 . 096 . 208 . 196 . 314 . 452 . 529 . 551 . 441 . 317 . 176 . 171	3. 77 6. 78 3. 79	1. 85 2. 35 1. 28 1. 19 1. 34 . 66 . 81 3. 99 1. 06 . 30	7. 9 3. 2 T .0 .0 .0 .0 .0 .0 .0	5. 2 5. 8 7. 0	3. 6 4. 9 4. 9 4. 3 5. 7 4. 9 4. 7	3. 6 4. 7 5. 6 6. 0 3. 0 5. 6 5. 1 5. 5 5. 8 3. 5 4. 5 5. 6	4. 5 5. 1 5. 6 6. 3 3. 8 5. 7 4. 9 5. 2 5. 7 4. 5 6. 1
											BLO N.; λ				7.]												
January February March April May June July August September October November December	25. 12 25. 15 25. 27 25. 29 25. 29 25. 35 25. 37 25. 32 25. 36 25. 46 25. 25	25, 52 25, 55 25, 56 25, 56 25, 57 25, 58 25, 58 25, 65 25, 65 25, 80 25, 56	24. 61 24. 60 24. 85 24. 87 24. 81 25. 10 25. 17 24. 93 24. 96 24. 70	52. 8 41. 5 28. 7 24. 6		39. 0 36. 0 54. 2 63. 4 71. 6 83. 9 87. 0 82. 1 74. 3 58. 6 49. 3 42. 4 61. 8	41. 9 59. 9 67. 4 74. 8 87. 8 91. 1 88. 1 78. 3 64. 3 58. 0 49. 0		52. 4 63. 0 74. 2 77. 4 75. 0 64. 8 51. 6 41. 7 35. 3	67 72 76 81 89 104 100 98 92 85 74 66	2 -13 16 8 36 51 56 56 32 25 11 11	14 8 18 24 40 46 49 53 41 33 20 17	14 17 24 36 43 45 50 40 32 19 20	13 16 23 35 43 45 51 40 33 21 20	64 65 53 59 66 61 59 72 67 72 70 74	51 27 26 33 28 26 35 34 41 31 38	44 25 25 32 28 27 40 34 42 35 43	0. 079 . 062 . 095 . 136 . 256 . 322 . 359 . 405 . 269 . 187 . 106 . 093		. 092 . 127 . 219 . 294 . 311 . 387 . 253 . 186 . 111 . 109	0. 23 .44 .14 .29 4. 40 .62 1. 42 2. 21 1. 77 .76 .21 .34	0. 12 .38 .08 .11 1. 68 .30 1. 22 1. 02 .89 .34 .15 .21	1. 1 2. 2 3. 6	2. 5 1. 8 3. 7 3. 8 4. 6 1. 5 3. 6	4. 4 4. 4 3. 8 4. 7 4. 9 2. 3 2. 8 2. 5 3. 4 4. 3 2. 5 3. 9 3. 7	4. 5 4. 2 5. 4 6. 2 6. 2 4. 7 4. 8 5. 5 4. 1 4. 4 2. 1 2. 9 4. 6	4.7 4.4 4.5 4.7 5.4 3.4 3.6 4.2 3.9 4.8 2.4 4.2

#### PORTLAND, MAINE

							H)	=47	ft.; I		103 ft						ha=	117 f	t.]										
							Wind	i 												1	Vum	ber	of da	ys					
		Ву	self-re	egister		Nt	ımbe	er of	wind	s, 8 a	. m.	and	8 p.	m.					ecip-	Sr	10W		F	og	m	axi- um mp.	ure 32°	+ + - 5	lec-
Month	Average hourly ve-	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	T or more	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperature or below	Thunderstorm	Aurora
January February March April May June July August September. October November. December.	8.8 9.6 10.4 9.8 8.5 7.8 7.6 8.8 9.1 9.2	W. N. NW. SW. S. S. SW. SW. N.	Mi. 35 27 38 43 35 28 38 21 25 38 29 45	NW. SE. NW. S. SE. NE. S. NW. SE.	3 0 1 1 1 0 0 1 0 0 1 0 1 0 1 0 9	14 10 6 11 8 10 12 11	2 4 3 4 4 6 3 3 6 0 2 3 4	1 1 2 3 5 11 4 4 2 2 3 3 4 4 4 4 2 3 3	1 2 10 4 3 4 2 2 1 2 1 2 3 4	3 3 7 10 9 15 8 6 7 11 2 3 84	5 5 9 9 14 10 11 16 18 18 10 7	11 17 4 11 9 2 6 11 6 10 13 8	11 7 10 4 3 7 12 8	2 3 3 0 3 0 3 6 3 1 1 28	17 16 14 9 17 12 17 20 18 19 12 12 12	6 5 4 9 11 11 8 3 5 6 8 7	13 12 3 7	16 8 18 14 10 10 10 9 14 11 13 15	8 14 13 7 7 5 7 8 9 9	13 10 5 8 0 0 0 0 0 0 0 8 9	12 7 5 7 0 0 0 0 0 0 0 6 5	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 5 10 4 1 10 8 4 7 7 7 2 4	2 5 13 2 7 7 6 6 5 7 3 2 1	15 22 4 0 0 0 0 0 0 0 0 5 10	0 0 0 0 0 1 1 0 3 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	26 10 4 0 0 0 0 0 0 3 16 28	1 10 8 8 5 1 0 0	0 2 6 11 6 0 7 0 2 6 6 0 0 46
							{H=	=30 f	t.; H		ORT.					ft.: h	1. == 1	ng ft	1					•					
January February March April May June July August September October November December	6. 7 5. 6 6. 9 6. 2 6. 5 6. 5 5. 3 5. 0 6. 8	E. NW. NW. NW. NW. NW. NW. NW. NW. SE.	30 26 25 21 26 21 17 15 18 23 15 21	SE. NW. W. SW. NW. NE. NE. E.	000000000000000000000000000000000000000	3 0 6 2 2 1 1 1 1 5 0 0 1	2 6	10 22 2 1 0 0 2 5 11 3 58	14 9 8 15 6 11 7 8 4 9 17 20 128	13 4 3 4 6 5 6 8 3 1 0 13	11 10 12 9 10 8 8 2 4 3 1 9	8 2 9 8 8 9 5 1 2 11 7 6 6 76	1 3 20 20 29 22 32 38 37 24 17 8	0 2 1 0 0 1 1 1 2 1 5 1 0	3 2 3 1 8 5 17 17 14 8 14 0	4 3 5 9 7 9 6 10 11 16 10 1		20 15 14 9 16 12 4 3 5 5 3 23	16 14 13 5 13 8	0 9 7 1 0 0 0 0 0 0 0 0 2	0 4 3 1 0 0 0 0 0 0 0	0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0	7 5 11 3 2 1 0 0 4 15 16 13	1 0 3 0 0 0 0 0 0 0 2 6 0	0 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 17 2 1 0 0 0 0 0 0 0 0 4 30	1 0 0 1 6 2 0 0 1 0 0 0	0 0 0 0 0 0 0 0 0 0 0
							(H=	8 ft.;	H <sub>b</sub> =		OVI ft.; h					ft.; h	1a=2	51 ft.	}										_
June	11. 9 12. 6 12. 7 12. 2 10. 5 9. 1 9. 2 10. 0 10. 1 11. 9	NW. NW. NW. NW. NW. NW. NW. NW. NW.	- 1	NW. NW. SE. NW. NW. NW. NW. SE. NW. SE.	13 4 7 4 2 0 2 1 2 4 4 5	3 5 9 5 6 8 4 7 7 3 4 7	2 4 1 4 2 7 9 4 7 1 2 5 4 8	2 3 3 2 1 3 5 4 3 2 2 3 3 3 3 3 3	4 2 12 4 5 7 5 5 4 2 0 3	6 6 14 9 11 9 10 11 11 14 4 6	4 10 9 15 11 17 15 15 13 14 5	14 1 6 4 6 2 4 3 5	31 20 12 21 18 9 10 12 10 18 23 26	0 0 0 0 0 0 0 0 0 0 0 4 1	16 14 12 8 17 9 11 8 15 12 11 141	4 4 7 9 11 11 14 16 12 6 8 4	11 11 12 13 3 10 6 7 10 10 10 16 119	-	10 7 9 12 5 6 5 8 7 14 98	9 9 5 3 0 0 0 0 0 4 4 4	5 7 2 0 0 0 0 0 0 0 0 2 1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 5 13 6 4 9 3 8 8 10 10 9	0 2 2 0 0 0 1 1 3 3 1 3 1	13 15 1 0 0 0 0 0 0 0 0 3 3 3	0 0 0 0 2 0 4 5 0 0 0 0	24 26 7 2 0 0 0 0 0 3 16 20	0 0 2 1 5 2 8 3 2 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0
						[H	H=4,	66 <b>3</b> f1	t.; H		UEI 685 ft					2 ft.;	ha=	86 ft	.]										
January February March April May June July September October November December	7. 9 7. 1 6. 5 6. 6 6. 5 6. 2	NW. E. E. E. E. E. NW. NW. NW.	49 36 30 24 34 30 28 21 21 29 33	W. W. NW. E. S. N. NW. W. NW. W. W	3 2 3 0 0 0 0 0 0 0 0 0 1 1	3 0 8 7 8 3 5 6 6 8 6 7	3 4 7 7 5 7 4 3 2 8 4 4 4	15 23 18 11 19 12 19 15 20 14 17 12	7 6 6 10 2 7 6 5 2 7 6 8 72	1 0 2 2 2 2 2 1 3 5 2 4 4 4	3 2 4 3 6 6 2 2 2 2 1 1 1 1	9 7 5 5 5 5 5 9 9 5 4	20 14 10 15 15 18 22 19 14 17 18 20	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	10 12 14 11 8 17 19 14 16 13 22 16	15 13 15 12 16 11 9 12 9 4 9	6 4 2 7 7 2 3 5 5 9 4 6 6	5 3 4 5 9 7 6 10 8 6 2 2		6 5 2 2 0 0 0 0 3 4 2 3 27	.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 3	0 0 1 0 0 0 0 0 0 0 0 2 0 1	4 10 0 1 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1	0 0 0 0 0 17 21 16 3 0 0	25 26 19 7 0 0 0 0 0 6 26 29	0 0 0 1 5 6 6 5 1 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0

 $[\phi = 35^{\circ}45' \text{ N.; } \lambda = 78^{\circ}37' \text{ W.}]$ 

	,								[φ=	=35°4 	5′ N.;	λ=	:78°3	37′ V	V.]												
	F	ressu	re			Г	Cempe	ratur	e										1	Moist	ure						
		Extr	emes			M	ean			Exti	remes		Dev poin			elati mid		Vapo	or pre	ssure	Pre	cipita	tion		Clou	dines	SS
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
January February March April May June July August September. October November. December. Year	29. 68 29. 49 29. 66 29. 66 29. 54 29. 54 29. 66 29. 70 29. 72 29. 82	30, 12 29, 80 29, 87 29, 91 29, 90 30, 00 30, 18 30, 30	28. 99 28. 68 29. 11 29. 25 29. 27 29. 32 29. 44 29. 38 29. 13 29. 20 29. 32	65. 8 71. 0 75. 6 74. 5 69. 3 58. 1 43. 8 41. 1	61. 3 77. 5 80. 6 85. 2 84. 6 79. 2 69. 4 55. 6 48. 2	57. 0 60. 4 75. 0 77. 0 78. 5 80. 1 75. 0 64. 8 52. 0 46. 8	48. 6 65. 2 67. 5 83. 2 85. 6 90. 0 88. 3 83. 6 72. 6 59. 6 52. 8	30. 8 45. 2 47. 0 59. 5 65. 1 69. 8 70. 5 64. 5 54. 6 40. 7		78 84 89 93 101 98 95 94 83 80 68	9 14 32 30 49 54 56 61 48 38 23 25	26 27 44 42 54 62 69 70 64 53 37 37	32 52 47 55 62 69 69 64 54 42 42	33 33 50 49 54 64 70 71 66 57 43 42 53	- {	67 73 62 47 56 60 61 61 61	78 72 79 68 50 67 77 75 74 76 71 84	In. 0. 167 . 162 . 307 . 286 . 430 . 564 . 714 . 738 . 605 . 425 . 244 . 237 . 407	In. 0. 202 203 410 341 449 563 722 720 601 325 288 288	. 207 . 374 . 355 . 434 . 608 . 745 . 765 . 637 . 486 . 296 . 279	5. 38 4. 46 5. 21 1. 13 8. 07 11. 65 2. 55 6. 49 3. 61	1. 45 1. 27 3. 13 . 76 3. 25 3. 53 1. 60 2. 52 1. 24 1. 06 2. 69	10. 1 T . 0 . 0 . 0 . 0 . 0 . 0 . 0 . T T	2. 8 4. 8 5. 6 5. 7 3. 9 3. 9 3. 8 7. 2	4. 2 5. 4 6. 7 4. 9 4. 5 4. 1 6. 2		5.8 5.9 4.8 3.1 4.5 5.2 4.9 4.3 3.8 3.9 7.0
											O CI'. 4' N.;																
February March April April May June July August September October November December	26. 49 26. 64 26. 60 26. 57 26. 58 26. 64 26. 63 26. 68	26, 86 26, 84 27, 03 26, 93 26, 92 26, 87 26, 88 27, 04 27, 14 27, 06 26, 86	26. 02 25. 94 26. 24 26. 03 26. 13 26. 29 26. 38 26. 22 26. 23 26. 41 26. 17	12. 8 -3. 4 30. 6 34. 1 54. 4 63. 0 72. 4 65. 3 56. 3 41. 9 33. 8 23. 5 40. 4	22. 7 7. 6 42. 1 47. 4 70. 1 77. 8 92. 0 82. 9 72. 0 56. 5 45. 4 33. 1 54. 1	19. 1 4. 3 38. 8 48. 1 70. 8 79. 8 92. 7 84. 2 72. 2 53. 1 38. 5 28. 4 52. 5	46. 0 52. 5 74. 6 83. 6 96. 8 87. 8 77. 2 61. 0 49. 5 37. 8	23. 9 29. 7	16. 8 1. 4 35. 0 41. 1 62. 4 70. 7 82. 4 75. 0 64. 8 48. 8 37. 6 27. 2 46. 9	55 58 65 85 95 103 106 101 94 84 75 65	-12 -33 -6 -8 33 44 56 49 35 10 5 -10	7 -6 20 26 39 47 48 48 36 28 22 16	27 38 45 46 47 37 29 26	13 1 22 29 40 45 46 47 37 31 27 20	80 88 67 74 60 59 46 56 50 62 66 75	31 42 51 60	86 54 55 35 33 23 31 47 65	. 041 . 110 . 151 . 255 . 332 . 348 . 341 . 232 . 154 . 120 . 091	0. 081 . 055 . 108 . 150 . 245 . 305 . 315 . 333 . 234 . 160 . 148 . 104	0. 080 . 056 . 116 . 163 . 252 . 304 . 317 . 332 . 230 . 170 . 150 . 108	0. 51 . 59 . 82 1. 21 . 09 1. 21 . 27 . 70 . 56 . 81 . 69 . 05	. 26 . 44 . 64 . 05 . 45 . 08 . 27 . 49 . 39 . 34 . 04	7.5 12.5 4.0 .0 .0 .0 .0 .0 4.9 8.3 .6	4. 1 5. 4 5. 6 5. 7 4. 2 2. 2 3. 9 3. 2 4. 9 3. 7 4. 0 4. 3	5. 8 6. 5 5. 9 5. 9 4. 3 4. 2 3. 4 3. 9 2. 7 4. 2 4. 5 5. 2 4. 7	5.8 5.3 6.1 5.9 4.7 4.0 3.9 3.8 2.9 4.3 2.4 3.9	5.8 5.7 4.4 4.1 3.2 3.9 2.9 4.5 4.0 5.6
								[	$\phi = 40$		.DIN Ν.; λ=			W.]													
February March April April May June July August September October November December	29. 54 29. 68 29. 69 29. 57 29. 55 29. 67 29. 74 29. 75 29. 73	30. 18 30. 02 30. 17 30. 27 29. 90 29. 97 30. 00 30. 09 30. 17 30. 29 30. 34	29. 01 28. 70 29. 08 29. 28 29. 23 29. 22 29. 37 29. 33 28. 91 29. 11	45. 3 60. 5 66. 8 71. 7 70. 1 63. 0 52. 7 38. 7 35. 8	49. 8 52. 2 69. 9 74. 8 80. 9 80. 2 71. 3 61. 3 44. 1 40. 0	72. 2 78. 7 75. 7 68. 6 57. 1 42. 3 39. 8	79. 0 86. 1 84. 0 76. 0 65. 3 48. 9 45. 7	20. 7 17. 8 37. 5 39. 7 54. 7 61. 2 66. 9 65. 9 59. 5 48. 2 34. 2 31. 5	27. 1 25. 1 46. 1 48. 9 65. 2 70. 1 76. 5 75. 0 67. 8 41. 6 38. 6 53. 2	48 55 74 85 91 93 102 94 88 80 75 65	-5 2 16 28 40 52 58 57 41 24 17 13 -5	16 14 34 33 46 55 60 63 56 45 29 29	19 16 35 34 46 54 58 62 56 46 29 28	35 48 56 60 62 57 45 29 30	72 74 64 62 68 68 79 77 69 75	61 50 44 52 47 56 60 58 55 64	61 67 56 59 53 65 69 65 59 65	. 095 . 208 . 203 . 336 . 448 . 529 . 582 . 463 . 328 . 177 . 166		. 099 . 232 . 213 . 347 . 464 . 519 . 578 . 488 . 327 . 175 . 170	5. 29 2. 79 4. 77 2. 41 1. 35 5. 76 1. 73 4. 87 1. 02 2. 18 1. 17 4. 38	1. 00 . 47 2. 82 . 65 1. 12 1. 00 1. 00 . 54	13.8 2.4 T .0 .0 .0 .0 .0 .0	6. 0 4. 5 5. 6 5. 7 5. 1 6. 2 6. 2	6. 8 6. 4 7. 1 7. 0 3. 9 6. 2 5. 0 5. 6 6. 3 5. 9 6. 7 6. 3	6. 2 5. 6 5. 5 5. 0 5. 2 5. 9	6. 5 6. 3 6. 6 6. 6 4. 0 5. 9 4. 8 5. 4 5. 6 6. 2 6. 3
											DING N.; λ				7.]												
January February March April May June July August September October November December Year		29. 57 29. 67 29. 55 29. 69 29. 61 29. 36 29. 23 29. 23 29. 24 29. 34 29. 40 29. 69 29. 68 29. 68	28. 63 28. 61 28. 79 28. 82 28. 85 28. 87 28. 91 28. 91 29. 16 29. 16	43. 6 49. 7 53. 0 58. 5 63. 8 71. 4 71. 2 67. 6 61. 1 50. 7 41. 6	67. 2 74. 4 79. 4 90. 4 91. 5 86. 2 78. 6 70. 1 51. 7	53. 2 66. 6 69. 9 77. 7 83. 1 94. 9 95. 5 89. 0 80. 4 70. 9 51. 9	90. 7 82. 5 74. 5 55. 5	56. 4 62. 5 70. 1 69. 6 65. 7 58. 8 47. 7 38. 4	49. 0 47. 9 57. 5 61. 5 68. 0 73. 8 83. 1 83. 2 78. 2 70. 6 61. 1 47. 0 65. 1	68 79 84 86 99 104 110 107 102 99 92 70	42 38 30	35 38 32 43 43 47 50 44 36 34 26 29	45 47 42 34 34 24 29	38 29 42 39 42 43 36 32 34 23 29	81 52 70 59 58 48 39 34 40 39 65	65 31 44 34 35 24 19 18 24 18	62 28 41 30 29 19 13 16 23 17 49	. 235 . 185 . 287 . 282 . 324 . 360 . 292 . 221 . 208 . 142 . 164	. 168 . 282 . 256 . 308 . 323 . 272 . 213 . 203 . 130 . 166		9. 56 1. 34 4. 76 . 72 1. 69 . 42 T . 04 . 09 T 5. 61	2. 87 2. 97 1. 20 2. 18 . 47 1. 26 . 42 T . 03 . 09 T 2. 53 2. 97	0.3 .0 .0 .0 .0 .0 .0	3. 8 4. 7 3. 4 4. 2 .8 1. 1 .5 1. 3 2. 1 5. 3	5.8 4.3 4.5 1.6 1.5 2.9 1.6 5.9	6. 0 6. 0 4. 9 4. 8 1. 1 1. 3 1. 3 2. 3 2. 3 7. 9	7. 0 7. 3 6. 2 6. 0 4. 3 4. 6 1. 1 1. 3 1. 5 2. 6 2. 0 6. 2

	1						[H	=345	ft.; ]	H <sub>b</sub> =		LE10				94 ft.	.; ba:	=146	ft.]										
						1	Wind	1												3	Nun	ber	of da	ıys					
		By	self-re	egister		Nı	ımbe	er of	wind	s, 8 a	. m.	and	8 p.	m.					ecip-	Sı	now		F	og	m	axi- um np.	ure 32°		lec-
Month	Average hourly ve-	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	6.04 inch or over	T or more	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperati	Thunderstorm	Aurora
January February March April May June July August September October November December	Mi. 9. 0 9. 2 9. 5 9. 8 8. 4 8. 5 7. 4 7. 1 7. 9 8. 3 9. 5 9. 0 8. 6	NW. SW. SW. SW. SW. SW. SW. NE. W. NE. SW.	Mi. 36 31 38 28 23 34 41 23 31 27 27 24 41	SW. NW. NW. NW. NW. NW. NW. NW.	2 0 3 0 0 2 4 0 0 0 0 0 0	6 11 3 9 10 5 3 3 6 6 5 15	8 9 8 7 7 12 7 10 16 13 13 19 129	6 5 2 8 11 5 3 7 8 13 1 5	4 1 7 4 7 3 3 3 0 4 0 2	6 5 9 8 6 12 4 15 8 4 8 3	10 11 17 12 12 14 21 15 16 4 6 1	8 8 10 5 5 5 13 5 3 10 16 11	14 8 6 7 4 4 8 3 3 7 11 5	0 0 0 0 0 0 0 1 0 1	9 7 12 20 15 8 7 14 18 17	10 13 11 10 6 17 18 9 7 5 7	13 10 11 7 1 9 6 6 7 6 8 18	12 12 16 11 4 10 16 10 9 10 7 14	11 12 8 4 9 15 8 6 7 6 13	5 2 0 0 0 0 0 0 0 1 1		0 0 0 0 0 0 0 0	6	7 4 3 0 2 0 0 1 1 2 1 1 8	5 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 5 8 18 15 4 0 0	16 1 1 0 0	0 3 1 4 7 13 5 5	0 0 0 0 0 0 0 0 0 0 0 0
						[H=	=3,23	1 ft.;	$H_b=$		PID 9 ft.;						a=58	ft.l											
December.	6. 5 9. 8 8. 2 9. 3 8. 5 8. 1 7. 6 9. 2 8. 3 6. 5	SE. SE. NW. N. S. W. W. W. NW. NW.		N. N. N. NW. N. N. N. N. N. N. NW. NW. N	0 0 1 0 0 0 0 0 0 0 0 0 0 4	14 11 12 17 12 15 9 11 12 17 8 13	5 6 7 2 4 5 5 8 9 3 3 6 6	5 4 2 5 4 4 2 7 2 3 2 2 4 4 2 4 2 4 4 2 2 4 4 2 4 4 4 4	12 11 4 11 6 10 6 5 5 4 4 5 8 8	0 5 4 8 15 9 10 5 7 5 2 6 76	0 1 2 0 0 6 6 6 2 3 1 1	11 8 11 10 10 7 17 17 15 15 16	12 7 18 5 8 4 5 6 5 13 21 14	3 5 2 2 3 0 2 1 2 1	8 5 8 14 14 17 16 21 14 14 9	10 15 19 10 13 11 13 9 6 11 11 11 11	13 9 7 12 4 5 1 6 3 6 5 11 82	10 10 5 11 2 10 6 7 5 6 4 2		18 16 13 6 0 0 0 0 0 5 6 11 75	10 10 5 5 0 0 0 0 0 5 4 2	0 0 0 1 0 1 1 1 0 0 0 0 0 1	12 1 0 3 1 1 0 0 0 0 1 2 9	3 3 0 3 0 0 0 0 0 0 0 0 6	18 22 5 5 0 0 0 0 0 3 5 12 70	0 0 0 0 1 10 23 16 3 0 0 0	31 29 27 11 0 0 0 0 10 20 31	0 0 0 1 4 8 11 7 4 0 0 0 0 35	0 0 0 0 0 0 0 0 0 0 0 0 0
						[H:	=273	ft.; I	H <sub>b</sub> =3		REA .; h <sub>t</sub> =					.; h <sub>a</sub>	=306	ft.]										-	_
August	0. 9 2. 1 3. 5 0. 8 0. 4 8. 6 9. 1 0. 8 2. 6 1. 7	NW. NW. SE. NW. NW. SE. SE. NW. SW. SW. NW. NW.	41 45 49 41 36 40 43 43 41 40 46	NW. E. NW. SW. W. NW. NN. NE. SE. NW. SE.	9 5 6 8 6 1 3 5 3 4 5 4	6 6 2 9 8 8 8 8 8 4 11 12 84	5 4 7 6 5 13 6 3 9 8 5 10 81	1 4 4 0 0 1 2 3 1 2 3 7 28	9 18 12 3 9 5 9 14 12 6 8	6 5 10 6 15 8 7 14 9 15 5 1	3 2 3 9 11 8 15 11 12 6 8 6	5 7 3 7 2 2 5 2 5	25 23 11 22 12 11 17 9 5 13 17 15	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7 7 5 5 13 9 13 8 11 11 6 9	9 10 10 15 16 7 11 15 8 13 6	15 12 16 10 2 14 7 8 11 12 11 16	10 17 17 7 10 11 11 11 9	11 5 8 7 10 6 7 6	13 7 5 4 0 0 0 0 0 0 0 7 6	8 4 4 0 0 0 0 0 0 0 0 0 0 0 2 2 2 2 2 2	0 0 0 0 2 1 0 0 0 0 0 0 3	0 4 5 1 1 2 0 6 6 6 6 6 2 2	6 0 2 1 3 1 1 2 4 6 4 8 3 8	11 15 0 0 0 0 0 0 0 0 0 0 2 1	0 0 0 0 0 2 1 6 7 0 0 0 0 0 0 0 1 6 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 2 13 16	0 0 1 2 6 7 11 14 2 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0
							[H=	718 ft	:.; H		DDI 2 ft.;					; h <sub>a</sub>	=34	ft.]											
February 8 March 9 April 7 May 9 June 8 July 8 August 8 September 9 October 8 November 7 December 6	3.5 M.2 M.6	W. W	38 8 31 1 26 8 27 1 31 V 20 1 18 V 27 1 26 1 24 N	S. NE. SE. NW. W. NW. NW. NW. NW. NW. NW. NW. NW.	0	5 8 5 3 5 4 6 4 8 10 9 14	1 0 6 1 3 0 1 0 2 6 1	2 1 5 6 2 2 1 2 2 1	6 19 7 17 20 25 15 9 6	6 13 4 7 10 4 5 5 2 5 9 6	9 7 6 6 3 5 0 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	4 2	69242466977	0 0 0 0 1 0 1	7 7 10 8 16 15 27 26 23 21 21 10	6 4 2 3 5 5 7 5	19 19 15 14 9 11 2 2 2 5 2 16	17 1 4 9 7 5 2 0 2 1	2 9 5 4 2 0 0	1 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0	0 2 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7 8 0 1 0 0 0 0 0 0 6	2 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 :	0 0 0 0 9 12 26 28 17 6 1 0	2 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

3 191 59 116

Table 16.—Annual meteorological summaries for the year ended Dec. 31, 1936—Continued RENO, NEV.

				1					[φ=	39°32	′ N.;	λ=1	119°	49′ ٦	w.j												
	P	ressu:	Thew Relative																								
		Extr	emes			Me	ean			Exti	remes							Vapo	or pre	ssure	Pre	cipita	tion		Clou	dines	S
Month	Monthly mean	Maximum	Minimum	8 8. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
December.	25. 45 25. 49 25. 44 25. 45 25. 49 25. 48 25. 53 25. 68 25. 47	25. 85 25. 82 25. 87 25. 70 25. 55 25. 61 25. 69 25. 70 25. 95 25. 81	25. 00 24. 77 25. 05 25. 18 25. 25 25. 20 25. 33 25. 16 25. 23 25. 30 24. 95	30. 3 34. 8 40. 1 45. 0 51. 4 59. 8 56. 6 46. 7 41. 1 27. 9 27. 1	41. 9 40. 7 53. 0 62. 2 66. 9 75. 0 85. 8 83. 7 73. 5 64. 4 51. 4 39. 0 61. 5	65.9	44.8 58.1 66.9 71.9 78.9 90.2 88.3 78.4 69.1	28. 4 27. 2 31. 5 38. 4 43. 4 50. 4 54. 6 44. 7 38. 7 25. 1 22. 5 38. 6	38. 0 36. 0 44. 8 52. 6 57. 6 64. 6 74. 3 71. 4 61. 6 53. 9 41. 8 33. 3	56 60 71 83 87 96 102 95 89 84 69 59	16 13 18 23 33 39 47 44 35 28 19 9	22 25 25 25 30 32 38 41 38 33 30 20 21	27 28 26 28 29 37 38 36 31 30 24 25	28 28 26 29 30 38 40 37 31 30 22 24	% 66 80 67 66 60 62 52 52 59 65 69 76	% 55 60 35 29 26 28 21 19 23 29 34 58 35	35 29 25 30 22 20 22 27 29	In. 0. 123 . 138 . 131 . 167 . 182 . 235 . 242 . 187 . 167 . 104 . 111 . 171	. 154 . 136 . 152 . 160 . 220 . 236 . 220 . 177 . 171 . 131	. 151 . 138 . 159 . 165 . 230 . 252 . 231 . 175 . 165 . 115	3. 01 .04 .04 .77 .10 .48 .12 .20 .03	.02 .04 T .40 .09 .27 .07 .18 .02 .46	11. 2 .4 T .0 .0 .0 .0 .0 .0 .2 14. 3	2. 1 . 6 1. 4 1. 0 4. 6	6.3 4.0 3.5 2.9 3.6 2.6 2.2 1.2 3.3 1.5	3. 1 2. 8 1. 5 3. 1 1. 0 5. 6	5. 7 6. 1 3. 7 3. 4 2. 6 3. 6 2. 3 1. 1 2. 7 1. 3 5. 1
	Vear 25. 48 25. 95 24. 77 41 0 61 5 62 4 66 4 38 6 52 5 100 20 24 22 69 34 29 .104 .131 .115 .03 .02 .2 1.0 1.5 1.0 1																										
January February March April May June July August September October November December	29. 96 29. 75 29. 92 29. 93 29. 79 29. 78 29. 89 29. 94 29. 97 29. 97 30. 11	30. 48 30. 23 30. 39 30. 44 30. 06 30. 18 30. 22 30. 22 30. 34 30. 50 30. 60	29. 26 28. 95 29. 28 29. 52 29. 44 29. 54 29. 57 29. 57 29. 28 29. 40 29. 53	27. 5 28. 2 45. 5 48. 6 62. 9 70. 0 74. 2 73. 5 66. 9 55. 0 41. 2 35. 9	35. 3 37. 0 58. 3 58. 9 76. 0 80. 2 86. 0 84. 9 80. 0 69. 0 53. 7 44. 6	34. 3 37. 1 54. 1 56. 3 70. 4 75. 1 79. 3 79. 0 161. 3 48. 4 42. 7 59. 3	40. 5 43. 6 63. 2 64. 5 81. 4 84. 9 90. 2 88. 8 84. 7 72. 1 57. 6 49. 4 68. 4	25. 4 25. 5 41. 7 43. 4 55. 9 63. 6 69. 6 69. 2 62. 6 51. 4 37. 7 33. 5 48. 3	33.0 34.6 52.4 54.0 68.6 74.2 79.0 73.6 61.8 47.6 41.4	59 76 82 87 93 104 105 97 95 84 81 70	6 6 27 30 43 53 62 59 47 29 20 18	24 24 39 38 52 61 68 68 62 51 34 32 46	50 60 66 66 52 34 34	26 25 40 41 52 61 68 68 63 52 34 34 47	84 85 80 70 69 74 81 84 84 87 75 86	53 53 55 53 56 49 67	63 64 58 53 64 69 70 71 72 58 74	0. 139 141 255 . 250 . 403 . 547 . 683 . 695 . 560 . 401 . 215 . 191 . 373	0. 148 . 154 . 266 . 248 . 386 . 535 . 647 . 663 . 529 . 414 . 220 . 207	0. 151 . 149 . 270 . 274 . 398 . 549 . 686 . 695 . 578 . 417 . 223 . 210	7. 76 3. 92 3. 83 2. 68 45 3. 88 3. 18 2. 90 1. 43 1. 68 . 92 4. 34	2. 24 1. 16 1. 44 . 85 . 39 2. 40 1. 10 1. 57 . 74 . 87 . 46 1. 05	.0 T .0 .0 .0 .0 .0	6. 1 7. 4 5. 5 4. 2 3. 4 5. 0 6. 3 5. 6 3. 3 5. 6 4. 2	6. 2 5. 9 5. 7 5. 1 2. 1 4. 1 6. 2 4. 0 4. 0 4. 8 4. 9 6. 0	4. 2 4. 3 5. 5 5. 5 2. 8 5. 0 5. 3 5. 1 4. 1 3. 6 3. 6 6. 3	6. 1 6. 4 6. 5 5. 7 2. 9 5. 1 6. 2 5. 3 4. 5 4. 5 4. 5 5. 4
											HEST ' N.;														,		
February_ March	29. 31 29. 43 29. 47 29. 36 29. 36 29. 45 29. 52 29. 49 29. 46	29, 95 29, 82 29, 91 30, 03 29, 71 29, 78 29, 80 29, 82 29, 95 30, 07	28. 57 28. 71 28. 76 28. 96 28. 90 29. 11 29. 12 29. 07 28. 71 28. 83 28. 69	21. 9 17. 3 34. 4 39. 4 58. 3 64. 9 71. 2 67. 1 61. 5 47. 8 33. 2 31. 8 45. 7	44. 5 66. 5 73. 1 79. 7 75. 9 70. 1 55. 3 37. 4 35. 8	42. 5 61. 3 69. 6 75. 9 71. 7 65. 5 52. 7 35. 5 34. 8	28. 0 25. 7 44. 3 49. 1 71. 3 77. 7 82. 9 79. 9 74. 1 60. 8 41. 9 40. 7 56. 4	18. 6 12. 0 30. 3 34. 7 49. 2 56. 9 62. 5 61. 3 55. 5 44. 1 28. 0 27. 8 40. 1	23. 3 18. 8 37. 3 41. 9 60. 2 67. 3 72. 7 70. 6 64. 8 52. 4 35. 0 34. 2 48. 2	43 50 68 77 88 91 102 94 91 79 74 62 102	23 33 48 48 51 39 26 9	46 51 55 54 52 40 26 24	12 32 36 49 50 52 54 52 41 27 26	11 31 35 47 52 53 55 52 41 27 26	64 61 58 64 72 76 74 73	63 71 73 55 47 40 49 55 60 66 68	70 77 76 61 55 46 58 63 65 71 69	. 193 . 335 . 387 . 445 . 431 . 417 . 273 . 154 . 137		0. 097 . 079 . 185 . 217 . 343 . 402 . 411 . 445 . 408 . 276 . 157 . 145	2. 88 1. 57 6. 55 1. 83 1. 87 2. 30 1. 24 1. 25 3. 16 2. 31 2. 19 2. 93	1.16	11. 9 19. 2 2. 3 . 0 . 0 . 0 . 0 . 0 T 9. 2 12. 2	8. 1 4. 9 4. 7 3. 7 4. 9 5. 1 7. 4	8.8 6.9 7.6 8.7 4.4 4.9 4.3 5.5 5.3 7.0 7.8 8.1	5. 1 3. 0 5. 1 3. 9 7. 9 7. 8 6. 7	9. 0 6. 8 7. 3 8. 2 4. 4 4. 3 5. 3 5. 1 7. 5 8. 1 7. 5
											BUR				v.]					,							
January February March April May June July August September October October	29. 59 2 29. 52 3 29. 47 3 29. 46 2 29. 46 2 29. 46 2	29. 90 29. 93 30. 08 30. 01 29. 72 29. 64 29. 65	28. 75 29. 02 29. 00 28. 98 29. 08 29. 17 29. 19 29. 21	50.6	50. 2 63. 0 68. 6 70. 9 74. 5	69. 6 73. 5 80. 1 83. 2	51. 1 49. 9 57. 0 69. 2 73. 5 76. 4 81. 3 84. 7 77. 6 72. 4	43. 6 48. 1 53. 0 54. 0 53. 3	44. 4 42. 8 47. 0 56. 4 60. 8 64. 7 67. 6 69. 0 62. 8 56. 9	61 69 72 84 90 87 92 97 94 92	49	43 47 51 51	37 38 45 48 51 51 52	38 38 44 46 52 50 49	90 86 84	77 63 52 50 51 45 42	72 54 47 46 49 37 32	. 226 . 284 . 322 . 374 . 375 . 367	). 244 . 228 . 231 . 303 . 346 . 382 . 377 . 384 . 343	0. 254 . 237 . 234 . 284 . 320 . 397 . 365 . 356 . 308	9. 17 4. 97 1. 76 2. 25 2. 78 2. 02 . 51 . 00 . 92	2. 32 1. 62 . 69 . 77 . 80 . 97 . 41 . 00 . 45	.0	7. 9 8. 3 6. 9 6. 2 6. 0 6. 9 4. 2 1. 9 2. 7	7.8 9.1 7.7 6.5 5.2 6.4 3.1 1.9 2.5	8. 5 6. 8 5. 7 5. 7 6. 1 2. 6 1. 2	8. 6 9. 1 7. 7 6. 4 5. 7 6. 4 3. 7 1. 7 3. 3

.300 .294 27.84 2.32 1.0 5.3 5.6 5.0 6.0

29. 50 30. 08 28. 75 45. 5 60. 0 64. 0 66. 2 43. 3 54. 8 97

	1						H=4	4,493	ft.; ]	Нь=	4,527	ft.; ]	h <sub>t</sub> =	61 ft.	; h <sub>r</sub> =	= 53 fr	t.; h	a=76	ft.]										
							Wind	1												1	Num	ber -	of da	ıys					
		Ву	self-r	egister		N	ımbe	er of	wind	s, 8 a	a. m.	and	8 p.	m.				Pre	cip- ion	Sı	ow		F	og	mı	axi- um np.	ure 32°		lec-
Month	Average hourly ve-	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	T or more	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperatu	Thunderstorm	Aurora
January February March April May June July August September October November December	7. 8 7. 7 8. 0 7. 3 7. 2 6. 4 5. 7 5. 4 4. 5	W. W. W. W. SW. SW. SW. SW. SW.	Mi 32 40 32 20 30 20 20 20 20 20 20 20 40	W. SW. W. SW. NE. SW. NE. S.	1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 1 6	3 4 1 3 6 2 3 1 8 13 10 3	11 8 8 5 9 2 1 1 10 9 5 3	5 10 2 1 1 3 1 2 3 4 5 6	9 4 1 2 2 2 1 1 1 1 2 4 13	8 12 8 6 9 20 25 24 25 13 22 18	17	3 1 12 3 3 4 3 3 2 4 2 4 2 3 3 4 2 4 2 4 2 4	0 0 0 0 0 0 0 0 0 0 0 0	8 6 16 16 20 17 22 24 27 21 24 13	11 11 10 10 10 4 6 3 1 7 5 6	12 12 5 4 1 9 3 4 2 3 1 12 68	1 0 6	$\begin{bmatrix} 0\\1\\0 \end{bmatrix}$	3 6 4 2 0 0 0 0 0 0 1 9 25	1 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 5 19 11 0 0 0	18 7 6 0 0 0 0 0 7 28 29	0	0 0 0 0 0 0 0 0 0 0 0
							H=	=162	ft.: E			HM(				ft •	h.=!	59 ft	7						!				
January February March April May June July August September November December Year	8. 1 8. 0 9. 7 9. 1 7. 7 8. 0 6. 9 7. 0 7. 6 7. 5 9. 0 8. 1 8. 1	N. NE. SW. SW. SW. SW. SW. SW. SW. SW. SW.	38 24 34 31 32 23 34 30 32 24 27 28	N. NW. SW. NE. NW. NW. NW. NW. NW.	2 0 2 0 1 0 1 0 1 0 0 0 0 1 0 0 0 7	2 2 2 1 1 0 3 2	6 13 6 7 16 11 9 8 14 13 13 29	11 3 6 3 4 7 7 3 6 5 6	9 12 11 9 11 12 8 10 12 10 3 2	7 8 5 2 4 5 5 2 6 4 6 5	6 8 16 19 17 16 15 23 14 16 18 11	8 4 10 4 5 4 13 12 5 7 4 2	4 4 8 12 3 3 3 3 2 6 7 4	0 0 0 2 0 0 0 0 0 0	9 6 8 9 21 10 6 10 14 16 11 9	8 12 8 10 7 10 14 12 9 6 10 5	14 11 15 11 3 10 11 9 7 9 9 17	12 19 12 10 3 12 12 9 8 5 7 16	9 8 10 8 3 11 7 7 5 3 5 9	6 4 0 1 0 0 0 0 0 0 0 0 2 1 3	2 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 1 0 0 0 0 0 0 0 0 0	8 9 7 5 2 2 6 3 5 8 3 11 69	4 2 4 0 1 1 1 4 2 2 4 1 5	8 6 0 0 0 0 0 0 0 0 0 1 1 15	0 0 0 0 5 8 18 16 8 0 0	19 22 3 1 0 0 0 0 0 1 1 9 15	1 0 1 3 4 10 15 7 3 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0
						[	H=4	98 ft	.; H			EST		,		ft.: l	n_=1	02 ft	.]										
January February March April May June July August September October December December	11. 5 9. 2 9. 6 9. 5 7. 6 7. 4 7. 6 7. 5 8. 3 9. 5 9. 3	W. SW. W. SW. SW. SW. SW. SW. SW. SW. SW	34 41 37 35 30 27 22 25 22 34 32 31	W. SW. W. SW. SW. SW. SW. SW. SW. SW. SW	2 3 1 2 0 0 0 0 0 1 1 0	3 1 3 0 3 5 6 3 5 3 2	2 3 9 3 5 9 15 16 9 0 0	4 3 1 2 1 5 2 7 3 3 0 5	2 5 6 6 3 4 0 2 6 4 1 5	9 4 9 6 2 5 3 2 3 7 9 11	18 26 13 11 22 15 13 20 16 24 21 16	21 13 14 22 11 7 11 5 7 11 16 16	3 3 7 10 15 10 12 7 11 10 11 6	0 0 0 0 0 0 0 0 0 0	0 4 5 3 14 14 16 12 12 5 4	4 11 7 6 10 10 12 8 9 6 2 8	27 14 19 21 7 6 3 11 9 20 24 18	22 18 18 20 14 7 3 10 11 14 15 13	15 9 13 16 8 5 3 7 7 8 8 8 10	23 23 14 9 0 0 0 0 0 4 13 12	19 17 11 4 0 0 0 0 0 1 10 7	0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 2 8 6 1 1 0 1 3 3 1 3	0 0 1 1 1 0 0 0 0 0	15 21 2 0 0 0 0 0 0 0 0 7 5	0 0 0 0 0 2 6 3 3 0 0	28 27 17 12 0 0 0 0 0 4 20 21	0 0 1 0 5 3 5 6 4 3 1	0 0 0 1 0 2 1 0 0 0 0 0
1 681	9.0	D 44.	41	SW.	10	34	74	36	44			154 1		0	94	93	179	165	.09	98	69	1	30	3	50	14	129	28	4
	1						H=4	179 ft	.; H			BUR ht=				ft.; 1	ha=7	'6 ft.]											
January February March April May June July August September October November December Year Year March May	4. 4 4. 7 4. 2 5. 0 4. 8 5. 2 4. 9 4. 4 2. 9 3. 6	SW. N. N. N. N. N. N. N. N. N.	24 17 16 17 17 19 11 17	W. SW. SW. NW. NE. N. N. N. N. N. SW. SW.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	10 17 20 25 18 24 28 24 15 18 15 9	4 1 3 6 10 9 10 14 15 8 5 3 88	6 3 2 4 3 4 1 3 3 3 5 11 48	5 3 5 1 4 6 2 0 1 1 3 4	11 6 1 1 2 2 0 2 2 4 4 14 4 14	11 14 13 4 12 7 4 0 1 1 10 8	4 1 8 1 2 1 2 8	7 10 12 10 2 5 6 7 12 10 13 8	3 1 2 8 3 2 9 11 9 9 2 0	1 0 2 6 8 6 17 22 17 12 4 0	7 6 7 10 8 10 7 8 6 10 11 5	23 23 22 14 15 14 7 1 7 9 15 26	21 14 10 14 9 5 0 5 2 3 17	18 16 8 8 9 7 2 0 5 0 2 12	0 3 5 0 0 0 0 0 0 0 0 0	0 2 4 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	18 18 12 8 6 7 0 1 6 14 26 25	7 8 5 0 1 0 0 0 0 2 9 18 6	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 1 0 3 6 4 1 0 0	6 9 4 2 0 0 0 0 0 1 15 8	0 0 0 0 1 2 3 0 0 0 1 0 0 1 0 0 0 7	0 0 0 0 0 0 0 0 0 0

## UNITED STATES METEOROLOGICAL YEARBOOK

Table 16.—Annual meteorological summaries for the year ended Dec. 31, 1936—Continued

ROSWELL, N. MEX.  $[\phi = 33^{\circ}24' \text{ N.: } \lambda = 104^{\circ}27' \text{ W.}]$ 

				,					[φ=	=33°2	4′ N.;	λ=	1049	27'	W.]												
	F	ressu:	ге			Т	empe	eratur	e								-		:	Moist	ure						
		Extr	emes			M	ean			Ext	remes		Dev poin			elati mid		Vapo	or pre	essure	Pre	cipita	tion		Clou	ıdine	SS
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
March April May June July August September October November December	26. 55	26. 59 26. 69 26. 59 26. 58 26. 62 26. 59 26. 64 26. 77 26. 88 26. 68	25. 85 25. 79 25. 99 25. 98 26. 20 26. 18 26. 05 26. 13 26. 06 25. 90	34. 4	63. 1 69. 6 75. 3 86. 6 86. 4 86. 7 75. 2 64. 5 53. 9 49. 6	87. 4 87. 6	52. 5 60. 5 69. 4 76. 2 81. 3 93. 1 91. 6 91. 2 80. 8 70. 9 60. 2 57. 0	29. 1 38. 4 44. 5 55. 7 63. 2 65. 5 65. 4 58. 8 44. 9 31. 3 28. 3	44. 8 53. 9	90 93 102 103 101 94 87 77 69	10 13 26 26 41 54 57 60 33 33 20 18	20 21 26 48 52 58 53 57 41 25 25	19 20 25 50 50 56 53 55 42 25 26	23 17 18 24 47 44 53 51 53 41 26 27	% 73 58 46 44 72 64 72 63 87 80 69 75	30	% 47 25 18 18 38 22 34 31 50 46 35 44 34	In. 0. 115 . 111 . 114 . 146 . 353 . 404 . 479 . 407 . 473 . 260 . 136 . 135 . 261	In. 0. 120 . 107 . 113 . 145 . 370 . 453 . 413 . 451 . 267 . 138 . 147 . 258	. 097 . 104 . 141 . 336 . 298 . 412 . 378 . 420 . 260 . 140 . 148	. 04 . 09 . 04 2. 21 . 94 1. 42 . 22 5. 15 . 29 . 28	. 03 . 09 . 04 1. 24 . 83 . 72 . 14 2. 26 . 15 . 22 . 10	.0 .0 .1 T	5.8 2.6 2.8 3.1 4.7 4.6 3.5 2.4	3. 5 2. 5 3. 5 4. 1 1. 5 2. 9 2. 2 3. 7 4. 5 3. 0 2. 9	2. 3 3. 0 4. 0 5. 2 1. 6 4. 3 3. 5 4. 4 4. 4 3. 3	3. 4 5. 2 1. 9 3. 5 2. 9 4. 4 4. 4 3. 2 2. 8
											MEN							,		-					!		
February	30. 01	30. 40 30. 23 30. 34 30. 18 30. 03 29. 92 29. 96 80. 04 30. 08 30. 38	29. 49 29. 33 29. 55 29. 57 29. 54 29. 58 29. 62 29. 51 29. 65 29. 86 29. 49	44. 8 45. 5 47. 4 50. 1 55. 1 58. 6 62. 8 61. 7 60. 0 55. 3 44. 1 40. 1 52. 1	53. 2 53. 4 61. 2 66. 4 73. 5 79. 6 86. 7 85. 6 81. 7 73. 7 62. 5 48. 1 68. 8		57. 2 57. 6 67. 4 71. 7 79. 3 86. 6 94. 7 94. 1 90. 1 79. 4 68. 8 53. 3 75. 0	42. 8 43. 4 45. 2 48. 8 54. 0 58. 2 61. 9 60. 0 57. 8 52. 6 41. 1 37. 0 50. 2	50. 0 50. 5 56. 3 60. 2 66. 6 72. 4 78. 3 77. 0 74. 0 55. 0 45. 2	66 68 76 85 98 105 109 105 102 94 76 64	35 33 34 36 45 50 55 52 50 46 31 31	41 42 41 45 46 51 51 51 46 45 37 35	37	46 42 47 47 46 42 43 36 37	88 80 84 76 67 69 62 71 78 82	71 53 49 38 37 31 33 30 39 40 70	65 44 44 31 30 23 23 22 34 33 62	. 267 . 304 . 315 . 376 . 375 . 370 . 318 . 306 . 225 . 207	. 290 . 291 . 318 . 301 . 352 . 383 . 385 . 313 . 301 . 222 . 227	0. 296	3. 80 8. 59 1. 33 1. 69 . 68 . 27 T . 00 T . 35 . 03 2. 62	1. 00 2. 65 . 93 1. 56 . 36 . 14 T . 00 T . 31 . 03 1. 00 2. 65	0. 0 .0 T .0 .0 .0 .0 .0 .0 .0	4.8 5.2 3.2 2.5 2.6 2.0 .9 .8 .5 .9 .4 3.0	5. 5 5. 8 3. 3 3. 2 2. 4 2. 9 1. 1 . 6 2. 4 1. 1 5. 5	6. 2 5. 9 2. 3 3. 7 2. 9 2. 8 1. 3 . 7 . 7 1. 7 1. 1 4. 4	6. 0 5. 7 3. 5 3. 2 2. 6 2. 8 1. 0 . 7 . 6 1. 8 1. 4 5. 6
											ose ' N.;				.]												
February - March - April - May - June - July - August - September - October - November - December - 2	28. 84   2 29. 00   2 28. 97   2 28. 88   2 28. 90   2	9. 41   29. 23   29. 35   29. 35   29. 30   29. 30   29. 33   29. 31   29. 34   29. 53   29. 56   29. 36   2	28. 46 28. 27 28. 52 28. 53 28. 21 28. 62 28. 65 28. 65 28. 47 28. 59 8. 49 8. 26	9. 0 37. 5 43. 4 61. 6 66. 8 76. 4 74. 7 64. 7 48. 7 33. 4 32. 0	18. 5 53. 6 59. 1 74. 6 83. 1 94. 5 92. 4 77. 5 61. 5	19. 8 52. 4 59. 2 73. 4 83. 7 95. 9 90. 8 75. 1 57. 8 43. 5 37. 7	64. 8 79. 4 88. 5 99. 8 98. 2 81. 8 65. 5 52. 8 44. 3	6. 0 34. 6 40. 6 59. 0 63. 4 74. 3 72. 9 62. 8 45. 7 29. 7 28. 2	87. 0 85. 6 72. 3 55. 6 41. 2 36. 2	51 69 78 90 89 105 108 110 102 84 77 63	13 43 51 63 59 48 26 17	5 27 30 54 55 60 61 59 42 26 28	8 28 32 55 56 58 60 60 44 26 28	12 28 32 56 57 57 59 45 26 30	84 67 62 67 68 67 68 67 68 67 68 68 67 68 68 67 68 68 68 68 68 68 68 68 68 68 68 68 68	54 54 54 553 554 554 554 557 577 577	72 41 41 58 42 28 38 61 64 52	152 192 434 446 517 543 527 285 145 161	078 160 204 447 458 494 52) 542 312 152 168	. 089 . 160 . 210 . 463 . 475 . 516 . 517 . 323 . 145	. 44 . 14 2. 91 4. 14 3. 68 . 95 1. 02 8. 14 2. 48 . 04 1. 81	. 14 1. 10 1. 22 2. 41 . 88 . 49 2. 45 . 81 . 02	4. 5 . 0 2. 2 . 0 . 0 . 0 . 0 . 0 . 0 . 0	4. 2 2. 4 1. 1 3. 8 5. 1 4. 5 2. 1 4. 7	3. 1 3. 9 1. 9 1. 0 2. 8 5. 2 2. 9 2. 7 5. 2	4. 0 2. 0 1. 4 3. 3 5. 3 4. 2 1. 8 5. 0	4. 7 5. 1 3. 6 4. 1 2. 3 1. 2 3. 5 4. 3 2. 4 5. 5
											LOUI N.;				.]												
February 2 March 2 April 2 May 2	9. 28 29 9. 44 29 9. 32 29 9. 33 29 9. 36 29 9. 36 29 9. 46 20 9. 56 20 9. 55 20	9. 84   2 9. 69   2 9. 81   2 9. 78   2 9. 78   2 9. 66   2 9. 74   2 9. 63   2 9. 74   2 9. 87   2 9. 91   28	8. 75 8. 87 8. 89 9. 04 9. 04 9. 11 9. 17 8. 96 9. 01 8. 99 9. 12 9. 13 9. 14 9. 15 9. 16 9. 16 9. 17 9. 18 9. 18	20. 3 42. 0 45. 4 64. 2 68. 9 9 8 778. 8 9 778.	26. 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	27. 4   53. 5   57. 3   67. 3   68. 4   68. 4   692. 4   690. 9   68. 4   68. 68. 68. 68. 68. 68. 68. 68. 68. 68.	33. 0 59. 1 62. 4 80. 8 88. 1 97. 9 95. 9 95. 9 62. 6 67. 1 52. 7 3	15. 8 39. 3 42. 4 66. 2 77. 0 75. 2 65. 8 50. 4 84. 2 34. 2	87. 4 85. 6 74. 2 58. 8 43. 4 39. 4	67 74 74 89 88 104 109 106 98 83 72 66	24 20 50 55 64 66 51 32 19	15 32 36 53 54 64 63 61 46 29	17 34 37 54 56 61 61 60 46 30 30	19 34 38 54 55 60 61 61 7 81 7 81	79 6 68 4 69 8 68 4 58 4 652 3 632 3 79 5 80 5 73 6	57 (649 852 8547 443 443 443 86 839 868 667 663 562 66	69 50 53 49 42 36 31 31 57	184	114 202 245 427 467 548 560 541 329 175 181	. 122 . 210 . 262 . 439 . 455 . 538 . 549 . 546 . 342 . 185	1. 97 1. 67 2. 80 . 85 3. 07 . 60 . 85 5. 94 2. 79 2. 20 2. 08	1. 15 1. 06 . 86 . 35 . 99 . 40 . 76 2. 63 . 81 2. 11	2. 1 T T . 0 . 0 . 0 . 0 T 1. 1	4. 8 2. 8 5. 5	2. 6 1. 8 2. 4 5. 6 4. 3 2. 8 5. 0	5. 1 4. 5 3. 8 2. 8 2. 2 3. 3 5. 5 4. 0 2. 1 5. 0	6. 7 5. 4 4. 1 4. 6 3. 4 2. 7 2. 1 2. 9 5. 3 4. 2

							[H	=3,5	64; H	R b=3,		VEL					; ha=	=85 f	t.]										
	Wind													Number of days											<u>-</u>	l-Mildrebank			
		By	elf-re	gister		Nt	ımbe	r of v	wind	s, 8 a	. m.	and	8 p.	m.					ecip-	Sı	now		Fog		m	axi- um	re 32°	+mi	lec-
Month	A verage hourly velocity	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	T or more	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperature or below	Thunderstorm	Aurora
January February March April May June July August September October November December Year	Mi. 7.6 9.1 9.9 9.2 8.8 7.9 8.0 8.2 7.0 7.4 7.0 7.0 8.1	SS.	Mi. 34 43 35 35 32 24 34 27 23 25 29 34 43	NW. NW. SW. SW. SW. NE. NW. NE. NE. NE. NE. NW.	1 2 3 2 1 0 1 1 0 0 0 0 0 2	10 6 6 1 8 7 7 5 4 7 14 8	6 3 7 5 8 0 3 2 11 11 10 7	5 5 3 6 8 7 8 4 9 3 1 7	6 2 1 3 9 7 15 14 10 5 3 5	10 15 16 13 16 20 9 27 12 20 17 13	6 5 6 10 4 6 1 1 3 5 4 5	12 12 8	8 10 9 7 4 5 7 6 4 6 5 8	3 0 2 7 0 3 4 2 4 2 1 0 2 2 7	16 17 18 15 12 20 14 21 12 15 16 21	10 10 10 12 11 9 14 7 11 8 8 7	52 33 81 33 78 66 3	4 3 2 2 8 5 6 3 9 4 4 3 3	2 0 5 3	4 1 0 0 0 0 0 0 0 0 1 1 2 2	3 1 0 0 0 0 0 0 0 0 0 1 0 2	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 1 0 0 0 0 0 0 0 3 3 1 3	2 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 1 0 1 0 1 0 1 0 1	1 0 0 0 0 0 0 0 0 0	0 0 0 2 6 21 22 21 6 0 0	17 6 5	7 10 6	0 0 0 0 0 0 0 0 0 0
SACRAMENTO, CALIF.  [H=25 ft.; H <sub>b</sub> =66 ft.; h <sub>t</sub> =92 ft.; h <sub>r</sub> =83 ft.; h <sub>a</sub> =115 ft.]																	_												
January February March April May June July August September October November December	7. 8 6. 9 6. 4 6. 0 5. 0 5. 9	SE. S. SW. SW. SS. S. S. S. S.	24 22 35 24 27 19 19 20 27 31 25 33	SE. S. NW. SE. NW. S. NW. N. SE.	0 0 2 0 0 0 0 0 0 0 0 0	15 6 13 9 6 2 1 10 12 18 13 107	4 4 4 0 2 0 0 0 0 3 2 5 5	1 3 3 2 2 0 0 1 3 3 4 6	20 14 11 10 12 12 6 14 7 11 7	11 17 10 14 10 19 38 29 16 17 8 7	1 7 7 14 16 17 13 12 8 1 4 4	2 3 3 1 0 2 1 2 3 5 2 6	7 3 10 7 13 7 3 2 13 8 9 4	1 1 1 3 1 1 0 0 0 0 2 6 4	10 9 17 14 19 20 27 28 28 24 27 10 233	8 7 10 14 9 6 3 2 2 5 2 8	13 13 4 2 3 4 1 1 0 2 1 13 57	12 16 3 4 3 0 0 0 2 1 9	10 15 2 2 2 2 2 2 0 0 0 0 2 0 6	0 0 1 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 1 0 0 0 0 0 0 0	4 0 3 0 0 0 0 1 0 0 5 11 24	2 0 1 0 0 0 0 0 0 0 0 0 0 1 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 6 15 24 24 14 3 0 0	0 0 0 0 0 0 0 0 0 0 0	0 2 0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
ST. JOSEPH, MO.  [H=957 ft.; H <sub>b</sub> =967 ft.; h <sub>t</sub> =11 ft.; h <sub>r</sub> =3 ft.; h <sub>a</sub> =49 ft.]															_														
February.  March. 1 April 1 May June July August. September. October November. December.	9. 8 1. 2 0. 2 8. 1 8. 7 7. 6 7. 6 7. 6 7. 8 8. 2 9. 6 8. 9	NW. NW. NN. SE. SS. SS. SS. NW.	31 34 32 38 24 38 21 32 27 30 27	NW. NW. NW. NW. S. NW. NW. NW.	0 0 3 1 1 0 2 0 1 0 0 0	6 6 5 13 9 8 1 3 6 9 4 6	6 9 6 5 3 11 9 6 7 5 4 7	9 10 6 5 10 12 9 8 12 2 5 5	5 13	3 4 9 12 19 9 18 15 18 11 16	7 0 9 0 5 6 12 7 1 7 10 5	8 3 3 2 6 2 3 3	19 15 17 14 3 5 2 8 4 9 17 8	1 0 0 0 0 0 0 0 0 0 1 1 1 0 0 0 0 0 0 0	14 10 15 18 16 24 28 17 13 15 20 11	7 9 11 5 9 4 3 9 5 7 7 7	10 10 5 7 6 2 0 5 12 9 3 13	5 3 9 16 9 3	4 1 7 10 4 2 7 13 8 0 4	14 10 0 4 0 0 0 0 0 0 0 0 4 7	111 5 0 2 0 0 0 0 0 0 0 1 4 23	0 0 1 1 0 0 0 0 0 0 0 0 0 1 1 3	2 1 1 2 2 0 0 4 4 6 3 6	0 0 0 0 0 1 0 0 0 0 0 0	20 21 0 2 0 0 0 0 0 0 0 2 45	0 0 0 0 0 14 29 25 8 0 0	20 24	0 0 1 5 13 5 2 6 13 5 0 1	0 0 0 0 0 0 0 0 0 0 0 0
	er " Stori		:			[E	I = 46	5 ft.;	H <sub>b</sub> =	S'=568		OUI			=172	ft.; h	1a=30	03 <b>f</b> t.	.]										
February   1	1.8 I 3.6 I 2.5 I 1.7 S 1.0 M 0.7 S 1.6 S 1.1 S 2.5 M	NW. NW. NW. NE. SW. SW. SW. SW. SW.	39 1 47 8 43 8 43 8 40 8 44 8	SW. NW. SW. SW. SW. NE. SW. SW. SW.	2 4 5 3 2 2 2 2 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2	2 5 10 5 4 7 4 7 12 2 5	4 12 0 3 7 17 10 2 5 3 4 6	5 3 4 6 4 7 5 9 5 1 3 6	3 4 2 4 2 2	19 16 9	9 5 8 6 14 13 26 20 12 14 12 11	4 6 6 2 1 5 5 3 4 6	23 16 17 15 7 5 3 6 5 0 0 22 0	0	9 11 14 12 18 20 24 19 12 15 23 13	5	19 12 8 9 4 3 1 3 12 10 5 13	14 6 6 11 7 7 4 5 11 9 2 7	6 6 8 4 4 4 3 9 8	10 8 2 5 0 0 0 0 1 1 1 3	0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	6 5 0 5 0 0 1 3 6 7 1 5	2 2 2 0 1 0 0 0 0 0 0 2 0 1 8	12 15 0 0 0 0 0 0 0 0 0 1 1	0 0 0 0 0 15 26 22 9 0 0	23 23 5 6 0 0 0 0 1 13 17	0 1 3 7 5 8 5 6 3 4 1 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

SALT LAKE CITY, UTAH 1  $\phi = 40^{\circ}46' \text{ N.}; \lambda = 111^{\circ}54' \text{ W.}$ 

	[φ=40°46′ N.; λ=													.; λ=111°54′ W.]													
	P	ressu	re	Temperature									Moisture														
		Extremes				M	ean			Exti	remes		Dev			elati midi		Vapo	or pre	ssure	Pred	eipita	tion	(	Cloud	lines	s
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
February March April May June July August September October December	40. 001	26. 15 26. 09 26. 11 25. 92 25. 86 25. 88 25. 90 26. 00 26. 02 26. 34 26. 13	25. 15 25. 01 25. 27 25. 28 25. 38 25. 55 25. 51 25. 25 25. 43 25. 40 25. 26	25. 6 29. 3 33. 1 43. 1 50. 0 59. 5 66. 9 63. 4 50. 3 43. 2 27. 2 29. 8	33. 6 36. 6 47. 1 62. 1 72. 9 80. 8 87. 5 85. 5 73. 5 62. 7 44. 6 38. 4	35. 2 47. 2 62. 3 73. 2 80. 5 85. 9 85. 5 74. 6 59. 6 37. 6 34. 7	92. 5 90. 2 77. 8 65. 4 48. 3 41. 4	23. 9 29. 0 40. 1 46. 2 55. 8 63. 9 60. 8 46. 0 39. 3 24. 1 25. 9	29. 0 32. 4 40. 4 53. 2 61. 8 70. 4 78. 2 75. 5 61. 9 52. 4 36. 2 33. 6	52 54 68 84 89 101 104 100 93 82 57 55	5 -7 21 14 34 42 53 48 31 27 6 16	22 24 26 33 35 46 53 50 35 32 24 25	28 28 33 32 43 50 48 35 33 29 26	26 28 27 32 31 43 51 45 31 34 31 28	% 86 81 75 68 59 64 63 65 57 68 87 81	% 74 71 50 38 25 30 31 29 26 36 54 62 44	% 81 75 48 36 24 30 35 29 22 42 75 74 48	In. 0. 121 . 136 . 140 . 191 . 208 . 312 . 407 . 378 . 212 . 189 . 128 . 133 . 213	In. 0. 141 . 155 . 154 . 190 . 186 . 283 . 376 . 353 . 212 . 191 . 159 . 142 . 212	In 0. 144 . 156 . 147 . 180 . 174 . 285 . 392 . 326 . 181 . 199 . 171 . 149 . 209	1. 21 . 85 . 35 1. 81 1. 44 . 67 . 16 1. 69 . 99	. 93 . 78 . 50 . 25 . 59 . 51 . 20 . 08 . 80 . 46 . 77	In. 10. 4 20. 9 10. 1 . 2 T . 0 . 0 . 0 . 0 . 0 . 6. 5 17. 7 65. 8	5. 0 2. 6 4. 8 4. 3 2. 6 1. 4 3. 2 1. 9 7. 0		7. 5 8. 3 5. 8 5. 5 3. 1 5. 0 6. 2 2. 9 2. 2 4. 3 2. 9 6. 5	5. 9 5. 2 3. 1 4. 6 4. 9 2. 6 2. 0 3. 7 2. 5 6. 8
	SAN ANTONIO, TEX. [φ=29°27' N.; λ=98°28' W.]																										
February March April May June July August September October November December	29. 18 29. 28 29. 20 29. 16 29. 23 29. 24 29. 20 29. 32 29. 47	29. 69 29. 58 29. 64 29. 42 29. 35 29. 39 29. 41 29. 60 29. 85 29. 69	28. 77 28. 80 28. 77 28. 95 28. 88 28. 99 29. 05 28. 95 29. 08 29. 00 28. 95	44. 1 43. 6 58. 0 58. 0 67. 0 74. 0 73. 3 73. 7 71. 8 58. 5 51. 0 50. 1	70. 4 73. 2 77. 6 87. 1 86. 1 89. 1 82. 8 71. 6 60. 5 60. 5	57. 7 56. 8 72. 7 74. 6 77. 7 88. 8 85. 7 88. 6 82. 1 71. 0 60. 9 60. 9		39. 3 56. 3 56. 1 65. 5 72. 8 72. 7 73. 2 70. 9 56. 6 49. 2 47. 5	52. 0 51. 0 66. 3 68. 0 74. 0 82. 4 81. 6 83. 8 79. 2 66. 3 57. 8 56. 4	84 82 90 93 90 106 96 106 95 89 88 77	25 19 45 38 58 65 69 53 42 31 34	39 49 50 64 68 70 69 69 53 42 43	42 50 52 64 68 68 66 66 52 41 44	37 39 48 49 63 67 69 66 68 53 42 44 54	74 84 75 77 91 84 91 86 92 83 74 79	48 65 54 57 48 59 55 54 58	541	0. 216 . 265 . 371 . 404 . 599 . 700 . 743 . 708 . 732 . 415 . 298 . 301 . 479	0. 274 . 289 . 377 . 409 . 598 . 677 . 702 . 640 . 661 . 409 . 287 . 314	. 266 . 360 . 383 . 580 . 666 . 713 . 639 . 689 . 418 . 298 . 308	6. 43 2. 68 2. 73 4. 07 1. 89 2. 17 1. 75	0. 14 .15 2. 46 1. 78 1. 55 3. 78 1. 04 1. 50 1. 61 .93 1. 42 1. 04	T 0.0 .0 .0 .0 .0 .0 .0 .0 .0 .0	4. 4 6. 3 4. 9 5. 6 7. 7 5. 1 6. 5 5. 0 7. 1 4. 0 6. 1 4. 9 5. 6	4. 5 7. 1 5. 1 4. 6 7. 9 5. 0 5. 6 5. 5 6. 8 4. 0 6. 7 5. 2	3. 2 5. 7 6. 4 5. 3 6. 4 3. 6 4. 9 5. 0 6. 3 3. 4 6. 3 5. 0 5. 1	4. 0 6. 6 5. 6 5. 1 7. 2 4. 6 5. 6 5. 0 6. 6 4. 0 6. 9 5. 3
	SAN DIEGO, CALIF. [φ=32°43′ N.; λ=117°10′ W.]																										
February March April May June July August September October November	29, 89 29, 93 29, 84 29, 79 29, 78 29, 76 29, 85 29, 95	30. 16 30. 14 30. 15 30. 01 29. 96 29. 89 29. 97 29. 89 29. 96 30. 21	29. 71 29. 58 29. 82 29. 70 29. 61 29. 57 29. 66 29. 61 29. 58 29. 78 29. 62	51. 1 52. 2 53. 8 54. 1 59. 1 61. 5 66. 9 67. 8 64. 1 60. 9 56. 9 52. 9	67. 7 72. 7 74. 2 71. 7 69. 1 71. 2 63. 9	60. 1 59. 5 59. 6 60. 2 65. 4 67. 6 72. 1 72. 7 70. 1 67. 4 67. 7 60. 7	64. 5 62. 8 63. 1 63. 7 68. 6 70. 1 75. 3 76. 3 73. 4 71. 1 73. 4 66. 2 69. 0	48. 6 49. 8 51. 7 52. 7 57. 9 60. 5 65. 8 66. 4 62. 7 59. 0 54. 0 50. 0	56. 6 56. 3 57. 4 58. 2 63. 2 65. 3 70. 6 71. 4 68. 0 65. 0 63. 7 58. 1	73 72 77 77 76 75 84 94 77 85 83 78	43 43 41 45 53 56 61 63 58 54 45	39 48 48 50 53 58 63 64 60 55 39 42	42 50 49 50 54 58 63 64 60 58 44 43	50 51 54 59 63 64 61 57 47	88 86 86 83 56 68	69 66 69 66 72 72 70 68 67 41 51	72 71 73 69 73 74 74 73 72 52 65	. 337 . 357 . 405 . 487 . 580 . 586 . 517 . 442 . 253 . 279	0. 284 . 363 . 356 . 371 . 422 . 488 . 582 . 593 . 527 . 475 . 298 . 293	. 364 . 362 . 375 . 425 . 496 . 584 . 595 . 539 . 473 . 334 . 337	0. 75 5. 18 . 92 . 48 T . 01 . 01 . 28 . 04 1. 86 . 44 4. 45	0. 68 1. 55 . 54 . 40 T . 01 . 25 . 04 . 83 . 34 1. 97	.0	6.7 7.7 8.5 8.9 8.8 7.0 6.3 3.0 4.9	2. 5 3. 4 1. 4 1. 2 3. 6 3. 5 5. 8	6. 1 4. 5 4. 6 3. 3 2. 9 4. 4 2. 4 2. 1 5. 0 4. 5 6. 4	6. 4 6. 5 5. 3 5. 4 4. 5 4. 4 4. 9 3. 7 2. 8 4. 7 4. 0 5. 9
											USK N.;				.]				,		,				'		_
February March April	29. 19 2 29. 36 2 29. 40 2 29. 27 2 29. 28 2 29. 33 2 29. 38 2 29. 39 2 29. 35 2	29. 75   29. 68   39. 79   429. 68   29. 79   29. 62   29. 71   29. 68   29. 75   29. 79   29. 97   29	28, 38 28, 68 28, 72 28, 88 28, 71 28, 96 29, 06 29, 01 28, 83 28, 82 28, 91	47. 5	25. 2 21. 9 43. 7 47. 9 70. 2 74. 3 82. 3 80. 1 75. 6 59. 5 41. 1 39. 6 55. 1		47, 6 52, 6 74, 0 77, 9 86, 0 84, 3 78, 1 62, 8 45, 2 42, 5		22. 4 20. 0 39. 5 44. 6 63. 4 68. 6 76. 2 75. 0 68. 8 54. 0 37. 8 35. 2 50. 5	48 54 68 76 90 94 105 102 95 79 69 63 105	-12 -6 11 22 40 49 55 55 45 27 15 13 -12	16 13 30 32 48 53 60 62 56 42 29 26 39	20 15 32 33 49 54 60 64 58 44 30 29			78 - 63 - 58 - 50 - 58 - 55 - 65 - 61 - 61 - 61		. 170	0. 112 . 097 . 186 . 203 . 371 . 435 . 532 . 598 . 493 . 309 . 177 . 165 . 306			0. 25 1. 56 1. 15 . 60 . 38 . 86 1. 69 . 72 1. 12 . 72 1. 16 1. 00 1. 69	3. 6 .7 .0 .0 .0 .0 T 1. 1 2. 4	8. 0 4. 0 4. 6 4. 1 5. 4 6. 7 6. 7 7. 8	8. 1 6. 7 6. 7 7. 9 4. 7 5. 3 3. 5 5. 2 5. 2 6. 1 7. 1 6. 3		7.8 6.8 6.7 7.5 4.9 4.1 5.3 5.5 6.6 6.9 6.7

SALT LAKE CITY, UTAH 1

$[H=4,222 \text{ ft.; } H_b=4,227 \text{ ft.; } h_t=32 \text{ ft.; } h_r=31 \text{ ft.; } h_a=46 \text{ ft.}]$ Wind Number of days																													
	Wind																	1	vuml	ber (	of da	ys							
Month		By self-register						rofv	wind	s, 8 a	. m.	and :	8 p.	m.				Pre itat		Sı	now		F	og	Ma mu ten	ım	re 32°		lec-
	Average hourly ve-	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	T or more	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperature or below	Thunderstorm	Aurora
January February March April May June July August September October November December	9. 9 8. 7 10. 8 9. 4 10. 0 9. 6 9. 7 8. 2 6. 0	SE. SSE. SSE. SSE. SSE. SSE.	Mi. 344 477 411 400 544 377 488 433 344 233 37	NW. W. W. W. SW. E. SW. NW. SE.	1 22 2 1 7 4 5 6 4 4 2 2 0 1 1 35	3 3 12 5 8 7 3 3 4 5 1 6 60	2 4 1 10 1 6 4 9 3 4 3 5	2 1 1 4 3 4 1 3 5 2 8 2	29 25 29 17 21	11 16 5 6 9 6 6 7 5 2 1 15	4 7 3 1 3 3 1 2 7 2 37	3 2 2 3 2 4 5 12 3	12 6 17 10 11 7 6 6 6 13 13 13 8 8	1 0 3 0 0 0 0 0 0 0 0 0 7	6 0 9 9 18 11 9 19 23 17 22 8	9 8 10 12 7 12 17 11 6 7 4 4	16 21 12 9 6 7 5 1 1 1 7 4 19	13 15 7 7 7 3 8 12 8 5 4 2 11	11 5 3 2 6 7 4	199 21 8 3 1 0 0 0 0 0 3 13	10 10 4 1 0 0 0 0 0 0 2 8	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	11 4 1 0 0 0 0 0 0 0 1 1 0 2	1 0 0 0 0 0 0 0 0 0 0 0 0	6 4 0 0 0 0 0 0 0 0 1 4 15	0 0 0 0 0 13 23 16 1 0 0	22 25 7	10 14 15 5 1 1	0 0 0 0 0 0 0 0 0 0 0
SAN ANTONIO, TEX. [H=646 ft.; H <sub>b</sub> =693 ft.; h <sub>t</sub> =242 ft.; h <sub>r</sub> =235 ft.; h <sub>a</sub> =301 ft.]																													
January February March April May June July August September October November December	11. 0 10. 3 10. 5 10. 2 10. 5 9. 9 9. 2 10. 9 10. 2 10. 4 10. 5	NE. S. NE. NE. E. SE. N.	38 35 41 43 32 43 32 37 31 50 35 30	N. SE. NE. SE. E. NY. NY.	1 3 3 3 1 1 1 1 4 0 1 1 1 0	11	16 17 14 5 21 22 5 2 7 15 13 9	5 11 12 7 18 9 18 33 15 7 15 12	1 11 4 14	10 7 14 11 4 8 16 8 6 5 1 5	6 1 3 4 2 2 2 3 0 1 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	6 3 6 0 2 3 2 6 2 6 5 3 4 4	7 0 3 3 0 2 0 0 0 6 3 6	0 0 1 5 1 0 4 2 2 0 0 1	14 6 8 10 3 11 7 8 1 18 3 9	12 9 13 11, 12 15 17 18 18 2 13 10	5 14 10 9 16 4 7 5 11 11 14 12	7 6 5 7 14 5 11 5 11 9 6 9	4 4 3 5 12 5 7 4 10 8 6 6 7	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0 1 3 1 1 0 0 0 0 0 0	8 14 10 7 12 1 4 1 7 12 8 7	1 7 1 0 1 0 0 0 0 4 2 5	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 1 2 1 24 19 26 14 0 0 0	8 9 0 0 0 0 0 0 0 0 0 0 1 0	0 1 3 4 11 6 11 5 8 2 0 0	0 0 0 0 0 0 0 0 0 0 0
							[H=	=26 f	t.; H			IEG h <sub>t</sub> =6				ft.; h	$a_a = 7$	0 ft.]											
January February March April May June July August September October November December	6. 8 6. 8 6. 7 5. 6	NW. W. W. W. W. SW. NW. NW. NW.	21	NW. S. W. W. NW. NW. S. NW. SE. S. S. S.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7 2 8 4 6 5 4 8 8 8 7 5	5 3 2 5 2 0 1 1 2 6 7 5 3 9	7 12 3 2 4 2 2 1 2 3 11 7	3 5 6 2 3 0 2 1 0 7 1 8	4 7 2 5 6 15 7 8 7 5 1 3	8 4 8 3 11 7 18 10 9 11 4 7	18 19 15 15 17 14 21 14 7	21 7 14 24 15 13 14 12 17 15 27 19	0 0 0 0 0 0 0 1 0 0 1 0 0 1 0	8 8 9 11 15 13 11 19 22 13 16 12	8 5 12 8 8 13 14 9 6 11 5 5	15 16 10 11 8 4 6 3 2 7 9 14	3 13 7 5 0 1 1 2 1 7 3 11	2 12 6 3 0 0 0 1 1 7 2 9	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 2 7 2 4 4 3 0 9 9 0 3 45	0 0 3 3 0 0 0 0 0 2 7 2 1	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 0 0 0 1 2 3 0 1 2 1 1 1 1 1 1 1	0 0 0 0 0 0 0 0 0 0 0 0 0
							[H=	603 f	t.; H			USK ; h <sub>t</sub> =				t.; h	<sub>3</sub> =67	ft.]							,		-	1	
February March April May June July August September	10. 9 10. 1 10. 1 8. 4 7. 9 6. 8 7. 6 8. 2 9. 3 1. 4	SW. SW. SW. SW. NE. NE. SW. SW.	38 30 31 26 30 20 30 26 27 30	SW. SW. SW. W. NW. NW. W. SW. NW. SW.	0 1 0 0 0 0 0 0 0 0	1 2 3 1 3 6 5 2 1 5 3 2	3 3 2 2 4 8 7 2 3 1 3 3	5 4 2 3 3 0 1 5 6 3 0 2	1 1 5 2 0 2 0 2 5 1 2 3	4 1 4 5 5 4 5 7 4 10 3 8	13 12 8 4 11 8 9 8 9 7 13 9	4 4 1 6 3 2 2 4 1 0 5 0	0 2 6 7 2 0 2 1 1 4 1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 4 5 3 9 9 16 10 10 3 7	5 12 13 8 15 13 9 13 8 18	22 13 13 19 7 8 6 8 12 10 19 18	18 9 12 5 10	9 12 11 6 7 5 8 10	17 18 10 10 0 0 0 0 0 0 2 12 5	12 11 7 5 0 0 0 0 0 0 6 3	0 0 1 0 0 0 1 0 0 0 0	4 3 4 3 1 0 0 0 2 6	1 1 0 1 1 1 0 0 0 0 0	17 17 2 0 0 0 0 0 0 0 0 0 0 4 3	0 0 0 0 3 9 8 4 0 0 0 0	30 26 20 11 0 0 0 0 0 3 19 22	1 1 2 4 3 6 5 5 6 3 1	0 0 0 0 0 0 0 0 0 0

1 34 41 34 24 60 111 32 30 0 87 124 155 136 97 74 44 2 24

Year..... 9.3 SW.

<sup>1</sup> Observations taken at airport.

 $[\phi = 40^{\circ}28' \text{ N.}; \lambda = 74^{\circ}01' \text{ W.}]$ 

$[\phi = 40^{\circ}28' \text{ N.; } \lambda = 74^{\circ}01' \text{ W.}]$ Pressure Temperature Moisture																											
	F	ressu	re			7	rempe	eratur	е			Moisture															
		Extremes				M	ean			Ext	remes		Dev poin			elati midi		Vapo	or pre	ssure	Pre	cipita:	tion		Clou	lines	SS
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 р. ш.	Maximum	Minimum	Monthly	Maximum	Minimum	8 s. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
January February March April May June July August September. October November December	29. 87 30. 00 30. 01 29. 90 29. 86 29. 99 30. 06 30. 07 30. 03 30. 22	30. 49 30. 38 30. 50 30. 60 30. 25 30. 28 30. 31 30. 44 30. 51 30. 59 30. 69	29, 35 29, 02 29, 40 29, 54 29, 55 29, 72 29, 53 29, 18 29, 37 29, 45	26. 3 23. 0 40. 2 44. 6 58. 4 66. 2 71. 3 71. 2 65. 4 55. 6 40. 7 36. 7	66.0	29. 6 26. 1 42. 0 47. 3 60. 8 67. 8 74. 1 73. 6 67. 2 57. 8 42. 8 40. 0	34. 6 30. 4 49. 0 53. 6 70. 4 74. 7 81. 6 80. 8 73. 2 63. 5 49. 7 45. 3	19. 2 36. 6 40. 8 53. 1 61. 9 68. 0 67. 8 62. 4 52. 3 36. 5 33. 0	24. 8 42. 8 47. 2 61. 8 68. 3 74. 8	52 48 67 77 89 88 101 93 87 75 73 60	0 3 222 322 45 57 63 61 50 31 20 18	22 18 36 36 49 58 63 65 59 50 34 32 44	43	0 24 20 36 38 50 59 65 66 60 49 34 33 44	% 85 80 83 74 72 78 75 82 80 82 76 81 79	69 65 63 70	76 82 72 70 76 75 79 80 74 70 77	In. 0. 131 . 107 . 216 . 224 . 361 . 500 . 580 . 629 . 516 . 382 . 213 . 188	In. 0. 136 . 111 . 236 . 285 . 370 . 487 . 588 . 628 . 519 . 379 . 212 . 187 . 345	. 113 . 222 . 238 . 377 . 513 . 630 . 656 . 538 . 375 . 212 . 198	In. 5. 78 2. 60 3. 40 2. 25 2. 05 4. 26 2. 98 5. 78 3. 77 1. 19 6. 97	. 75 1. 09 . 68 . 89 1. 46 . 97 . 90 4. 43 2. 19 . 49 2. 01	In. 2. 9 6. 1 . 2 T . 0 . 0 0 . 0 . 0 . T T T 9. 2	5. 1 5. 6 5. 8 5. 8 5. 3 5. 1 4. 5 5. 3 4. 4 5. 1 6. 7 5. 2	5. 9 6. 3 6. 0 6. 4 3. 4 5. 3 4. 6 5. 1 6. 1 5. 0 5. 4	4. 3 3. 1 5. 6 5. 4 3. 4 5. 6 6. 5 5. 4 4. 5 3. 8 4. 0 5. 7	5. 5 8 6. 3 6. 1 3. 4 5. 2 5. 5 4 5. 5 6. 1 5. 4
SAN FRANCISCO, CALIF. [φ=37°47' N.; λ=122°25' W.]  January 29. 92 30. 18 29. 51 51, 2 55, 2 56, 4 58, 7 49, 0 53, 8 66 42 45 44 43 81 68 65 0 2040 200 5 77 1 57 0 0 4 0 7 1 2 0																											
February March April April May June July August September October November December	29. 81 29. 84 29. 89 29. 81 29. 76 29. 72 29. 74 29. 71 29. 80 29. 97	30. 28 30. 11 30. 23 30. 06 29. 96 29. 83 29. 92 29. 92 30. 00 30. 29 30. 26	29, 37 29, 25 29, 43 29, 58 29, 52 29, 57 29, 62 29, 46 29, 54 29, 77 29, 39	51. 2 49. 5 51. 7 52. 8 56. 0 56. 5 54. 1 55. 7 51. 8 47. 8	55. 2 55. 2 61. 0 63. 1 65. 0 63. 6 62. 2 68. 8 67. 2 62. 1 52. 9 61. 8	56. 4 55. 6 60. 2 61. 6 63. 6 63. 7 61. 7 60. 4 64. 4 62. 2 60. 7 53. 5	58. 7 58. 8 65. 0 66. 5 68. 4 67. 6 65. 6 64. 7 71. 0 70. 3 65. 9 56. 6 64. 9	48. 0 49. 9 51. 3 54. 6 55. 8	53. 8 53. 4 57. 4 58. 9 61. 5 61. 7 59. 4 59. 3 63. 0 62. 2 58. 0 51. 6	66 71 77 83 85 78 73 78 91 86 78 67 91	42 40 42 43 50 52 50 49 51 50 45 40	45 46 44 46 49 52 50 52 52 51 46 44 48	45 42 46 47 52 53 54 51 50 41 42 47	48	81 88 78 80 78 85 89 92 88 86 82 87 84	68 53 56 55 64 68 75 58 57 50 69	68 58 60 60 68 70 77 67 69 57		0. 296 . 298 . 279 . 322 . 325 . 392 . 397 . 417 . 378 . 363 . 267 . 271	0. 289 . 303 . 297 . 325 . 343 . 396 . 388 . 405 . 392 . 378 . 282 . 267	1. 01 1. 09 . 49 . 28 . 03 . 02 . T . 69 . 01 2. 94	1. 57 3. 07 . 74 . 71 . 40 . 24 . 03 . 02 . T . 69 . 01 1. 06 3. 07	0. 0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0	4.8 5.9 3.7 5.5 5.4 4.1 4.6 6.5 4.7 4.7 4.8 4.9	2. 6 6. 8	6. 9 6. 2 3. 6 4. 6 3. 3 3. 6 2. 1 3. 7 1. 5 3. 3 2. 2 5. 3	6. 7 6. 4 4. 1 5. 1 4. 0 3. 7 2. 7 4. 8 2. 8 4. 2 6. 1 4. 5
SAN JUAN, P. R. [φ=18°28' N.; λ=66°07' W.]																											
February 5 March 2 April 2 May 5 June 2 July 2 August 2 September 2 October 2 November 2 December 2	29, 90 3 29, 93 3 29, 82 2 29, 89 3 29, 94 3 29, 87 2	30. 11 30. 02 30. 07 29. 93 30. 02 30. 03 29. 98 29. 95 29. 95 20. 02 20. 01	29. 82 29. 76 29. 81 29. 72 29. 77 29. 81 29. 77 29. 75 29. 75 29. 75 29. 70 29. 73	74. 4 74. 4 75. 5 78. 8 80. 4 82. 9 82. 5 81. 7 81. 2 80. 3 78. 4 75. 9	78. 6 79. 1 78. 7 79. 9 81. 9 84. 1 82. 6 82. 7 83. 1 82. 3 81. 2 79. 2		80. 2 81. 3 80. 9 81. 7 84. 5 86. 6 84. 5 85. 2 83. 7 82. 3 80. 5	70. 2 69. 8 70. 3 72. 6 74. 4 76. 0 75. 6 75. 8 75. 5 74. 7 73. 2 71. 0	75. 2 75. 6 75. 6 77. 2 79. 4 81. 3 80. 0 80. 2 80. 4 79. 2 77. 8 75. 8	86 87 89 89 90 90 89 87 89 87 84 85	67 68 65 70 71 73 70 72 72 73 70 68	70 67 67 70 74 74 75 76 75 75 73 70	72 - 68 - 68 - 71 - 75 - 75 - 75 - 72 - 73 - 73 - 73 - 73		79 76 75 80 76 78 84 83 84 83 82	81 - 69 - 71 - 75 - 78 - 75 - 78 - 84 - 82 - 78 - 78 - 78 - 78 - 78 - 78 - 78		. 670 . 737 . 824 . 852 . 866 . 912 . 879 . 863 . 807 . 738	0. 791 . 688 . 697 . 756 . 842 . 877 . 875 . 942 . 925 . 902 . 857 . 782 . 828	1	3. 43 7. 52 9. 30 5. 84 6. 37 5. 55 9. 87	. 38 1. 05 1. 52 5. 37 1. 22 2. 12 1. 49 1. 72 1. 42 1. 98	.0	4. 5 3. 7 5. 2 6. 2 5. 3 5. 9 6. 8 5. 7 6. 2 5. 1 4. 8	4. 3 - 3. 6 - 3. 8 - 5. 1 - 6. 4 - 6. 0 - 5. 2 - 5. 9 - 5. 8 - 4. 3 - 4. 5 - 5. 1 - 6.		4. 8 4. 6 3. 9 5. 3 6. 7 5. 8 5. 1 4. 7 4. 8 4. 2 5. 1
									SA1 [φ=35°		FΕ,												<del></del> ;				
February. 2 March. 2 April	3. 14 2 3. 25 2 3. 28 2 3. 33 2 3. 40 2 3. 40 2 3. 33 2 3. 32 2 3. 32 2 3. 32 2 3. 28 2	3. 41 2 3. 42 2 3. 49 2 3. 53 2 3. 54 2 3. 62 2 3. 62 2	22. 75 22. 68 22. 88 22. 88 22. 97 33. 22 33. 24 33. 01 33. 06 22. 94 22. 79	27. 3 31. 3 39. 1 49. 6 559. 0 60. 6 59. 2 50. 4 40. 8 30. 0 26. 0	38. 0 48. 8 57. 8 66. 3 77. 4 78. 6 76. 8 66. 4 56. 2 47. 4 38. 7	38. 9 50. 3 57. 7 66. 1 77. 2 74. 0 75. 3 64. 5 54. 0 41. 9 34. 9	42. 8 53. 9 61. 7 71. 1 82. 1 82. 7 81. 6 70. 7 60. 7 51. 7 42. 6	24. 1 28. 6 36. 7 46. 8 55. 1 57. 8 58. 1 48. 6 39. 2 27. 4 22. 4	28. 2 33. 4 41. 2 49. 2 59. 0 68. 6 70. 2 69. 8 59. 6 50. 0 39. 6 32. 5 50. 1	52 57 62 73 79 93 91 92 83 73 65 56	7 15 17 31 43 51 52 28 29 15 12	20 19 24 35 40 46 48 44 33 20	23 22 25 35 38 47 48 45 36 24 21	23 21 24 34 37 46 48 45 37 23	73 59 57 60 50 61 68 80 76 66 73	56 536 330 334 334 334 334 338 449 548 55	52 32 30 33 .27 .13 .12  .15 .15 	102 133 211 253 317 335 297 190 107 104	. 126 . 120 . 136 . 206 . 238 . 326 . 332 . 306 . 209 . 127 . 112	. 123 . 114 . 130 . 200 . 238 . 324 . 335	. 98 . 63 . 20 1. 75 . 42 3. 29 1. 36 3. 33 . 83 . T	. 42 . 18 . 62 . 21 . 79 . 37 1. 22 . 42 T	9. 6 5. 5 . 1 3. 0 . 0 . 0 . 0 . 0 4. 0 3. 0 T	4. 3 2. 2 3. 6 4. 9 2. 2 3. 2 2. 8 2. 5 3. 6 1. 1 2. 8	5. 4 3. 7 4. 4 2. 4 3. 1 4. 1 4. 9 4. 8 4. 4 2. 0 4. 1	6. 0 4. 9 5. 9 7. 5 4. 9 6. 7 7. 0 5. 6 3. 9 1. 5	3.6 5.1 4.5 5.3 4.7 4.5 4.3 3.9 4.2

<sup>†</sup> Partly estimated.

Table 16.—Annual meteorological summaries for the year ended Dec. 31, 1936—Continued SANDY HOOK, N. J.  $[H=15 \text{ ft.}; H_b=22 \text{ ft.}; h_t=10 \text{ ft.}; h_t=3 \text{ ft.}]$ 

					=10	ft.; l	$n_r = 3$	ft.; h	1a=5	7 ft.]																			
							Wind	1												1	Num	ber	of da	ıys					
		By s	elf-re	egister		Nu	ımbe	er of	wind	s, 8 a	. m.	and	8 p.	m.				Pre	cip-	Sı	now		F	og	m	axi- um np.	re 32°	tri	lec-
Month	Average hourly ve-	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	T or more	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperature or below	Thunderstorm	Aurora
January February March April May June July August September October November December Year	13. 5 15. 3 12. 7 12. 3 11. 7 13. 6 13. 8 16. 8 16. 2	S.	Mi. 51 41 49 55 46 32 39 40 60 43 53 46 60	S. SW. S. N. N. NW. NW. S.	13 9 6 8 5 1 1 4 3 4 8 9 11	6 3 7 2 5 2 3 7 8	3 7 9 6 4 7 8 12 9 6 6 6 13	5 5 7 3 1 10 3 6 5 4 0 3	3 1 6 6 6 2 6 5 6 8 4 1 1	4 2 19 12 22 11 15 10 15 15 15 9 5	8 8 6 5 10 7 13 12 10 15 13 12	8 6 9 12 3 6 11	9 8 6 7 13 8 7 1 3 4 17 8	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	10 10 5 8 16 13 11 12 9 13 9 11	8 4 11 10 10 5 9 10 11 4 8 6	13 15 15 12 5 12 11 9 10 14 13 14	12 11 16 14 8 11 4 12 9 11 6 13	11 9 11 11 7 10 3 9 8 6 6 6 12	10 6 5 1 0 0 0 0 0 0 5 2 29	5 5 3 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	19 21 19 14 12 21 16 20 15 21 13 19	6 1 8 2 1 5 0 0 3 2 0 4	11 17 2 0 0 0 0 0 0 0 0 2 1	0 0 0 0 0 0 0 4 3 0 0 0 0 7	26 7 0 0 0 0 0 0 1 12	0 1 2 5 7 10 10 1 1	0 0 0 0 0 0 0 0 0 0 0
							H=	52 ft.				NCI					h. — 1	139 fi	1										
January February March April May June July August September October November December	6. 3 7. 2 7. 0 7. 4 9. 6 9. 9 10. 8 9. 9 9. 3 7. 5 5. 4 5. 4	N. SE. W.	28 27 34 28 30 26 25 22 26 24 21 26 34	NW. SW. NW. NW. W. W. W. W. NE. SW.	000000000000000000000000000000000000000	15	8 3 3 1 1 0 0 0 0 0 2 1	2 0 3 1 1 0 1 0 0 7 11 26	5 9 4 4 5 1 0 0 0 1 0 4 33	9 9 3 5 1 2 2 2 2 3 9 5	7 9 8 10 16 14 10 11 7 7 3 3 105	6 11 29 27 33 39 47 48 48 35 25 14	9 9 7 5 1 2 2 1 1 10 5 14 66	1 0 1 2 1 1 0 0 2 0 0 0	9 7 16 11 15 17 18 10 19 12 12 12 8	4	18 16 7 11 6 7 1 7 0 7 4 14 98	12 17 4 6 6 4 1 1 0 1 1 8	11 16 2 4 3 2 0 0 0 0 1 0 6 4 45	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 1 0 0 0 0 0 0 0 0 0 0 1 1 3	5 4 1 0 0 0 0 5 2 10 14 11	2 2 1 0 0 0 0 0 1 0 0 5 3	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 2 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0
							[H	=47	ft.; E			JUA h <sub>t</sub> =				.; h <sub>a</sub> =	=54 f	t.]									,		
February March April May June July August September October November December	10. 7 13. 6 8. 3 10. 0 13. 7 11. 2 10. 0 9. 9 10. 6 10. 3	E.		E. NE. E. S. E. E. NE. E. E. NE.	1 3 0 1 0 0 2 0 0 0 2 2 2	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5 3 5 1 0 0 0 0 0 0 1 0 0 4	17 5 6 20 7 16 29 24 10 11 9 6	6 5 10 4 11 6 2 3 6 10 14 10 87	2 11 6 4 9 8 0 3 10 9 7 9	1 5 3 0 0 0 1 2 0 0 0	0 0 1 1 1 1 0 0 0 0 0 0 0 2	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8 8 15 4 2 1 5 7 6 6 9 7	21 19 15 23 17 25 19 17 22 22 19 19	2 2 1 3 12 4 7 7 2 3 2 5	18 25 22 24 18	3 7 21 13 17 19 15 20 12 16	0.0	0. 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 3 2 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 1 11 11 7 9 10 7 1 2	0 0 0 0 0 0 0 0 0 0 0 0
						[:	H=6	,994 1	ft.; B			FE, ft.; h				31 ft.;	; ha=	=53 f	t.]									-	_
June	6. 9 7. 5 6. 8 6. 8 6. 8 5. 6 5. 4 5. 2 5. 3 5. 3	N. N. N. N. E. E. E. S. N. E. E. E. S. N. E. E. E. E. S. N. E. E. E. E. E. E. S. N. E. E. E. E. E. E. E. E. S. N. E.	27 25 21 20 29 24 23 17 21 21	N. SW. SW. SW. SE. NE. NE. N. SE. SE. N. SE. N. SE. SE. N. SE. SE. N. SE. SE. N. SE. SE. SE. N. SE. SE. SE. SE. SE. SE. SE. SE. SE. SE	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	16 14 7 7 4 4 3 8 4 10 13 11	9 8 11 6 5 9 15 11 13 4 7 17	7 2 7 12 19 15 14 20 14 11 13 11	13 3 4 6 9 11 13 11 10 4 4 9 9 9	5 4 5 7 5 6 4 6 6 17 16 2 83	5 8 8 7 10 4 4 4 5 8 8 2 5 7	9 6 7 2 1 3 4 3 4	4 8 11 4 1 2 2 0 1 4 1 1 3	1 0 0 2 3 2 5 0 1 0 1 0	18 12 19 11 10 17 11 8 14 13 23 17	8 6 8 14 13 12 12 17 11 10 6 7	5 11 4 5 8 1 8 6 5 8 1 7	9 13 7 0 6	4 1 7 4 10 8 11 5 0 6	7 112 8 3 2 0 0 0 0 3 2 1 4		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 0 0 0 1 0 0 0 0 1 2 0 0	0 2 0 0 0 0 0 0 0 0 0 0	6 2 1 0 0 0 0 0 0 0 0 0 1 1 1	0 0 0 0 0 0 3 3 1 0 0 0 0 0 7	0 3 4 25 29	0 0 0 2 3 9 11 17 5 1 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Table 16.—Annual meteorological summaries for the year ended Dec. 31, 1936—Continued Sault ste. Marie, Mich.

									[φ=	46°30	0′ N.;	λ=	84°2	1′ V	V.]												
	P	ressu:	re			Т	empe	rature	3										1	/Ioistu	ıre						
		Extr	emes			Me	ean			Extr	emes		Dew			elati mid		Vapo	or pre	ssure	Pre	cipita	tion	(	Cloud	dines	S
Month	Monthly mean	Maximum	Minimum	8 8. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
January February March April June July August September. October November. December.	29. 16 29. 32 29. 32 29. 27 29. 27 29. 32 29. 36 29. 32 29. 33 29. 40	29. 74 29. 72 29. 87 29. 89 29. 62 29. 64 29. 56 29. 77 29. 85 30. 07 29. 94	28. 49 28. 37 28. 93 28. 72 28. 59 28. 79 28. 87 28. 87 28. 80 28. 59 28. 54	0 10. 3 1. 0 21. 9 46. 7 53. 1 63. 9 60. 0 52. 8 38. 4 22. 9 35. 3	63. 6 44. 8 27. 6 26. 1	64.3	79. 5. 71. 9 66. 3 47. 6 33. 8 31. 1	6. 5 -5. 0 18. 1 26. 7 40. 5 44. 9 55. 6 54. 3 47. 6 33. 9 17. 1 17. 6 29. 8	0 12. 8 4. 8 25. 4 32. 7 50. 8 56. 6 67. 6 63. 1 57. 0 40. 8 25. 4 24. 4 38. 4	35 38 42 63 82 81 96 88 84 68 60 45	-17 -17 -12 12 31 36 42 44 31 18 -10 2	25 41 46 56 54 49 34 19 20	43 47 55 54	55 51 36 20 22	81 86	% 81 80 72 71 64 56 50 63 65 72 70 83	% 89 81 80 79 70 64 56 73 80 79 78 85 76	In. 0.075 .045 .108 .142 .267 .318 .449 .429 .360 .204 .116 .110 .219		. 053 . 125 . 155 . 278 . 327 . 430 . 437 . 381 . 224 . 120 . 121	In. 2, 59 1, 84 2, 21 1, 95 3, 15 1, 03 1, 02 2, 85 5, 30 3, 79 2, 14 3, 40 31, 27	. 40 . 59 . 52 . 95 . 46 . 91 1. 04 3. 32 1. 72 . 44 . 81	31. 7 13. 2 5. 5 T . 0 . 0	8. 8 6. 9 7. 1 7. 8 5. 8 5. 0 2. 9 7. 2 6. 0 7. 4 7. 8 8. 1	6. 0 7. 7 7. 4 5. 7 5. 1 2. 9 5. 4 6. 1 7. 6 6. 7 8. 5	7. 8 6. 6 8. 0 7. 3 5. 7 4. 8 2. 9 6. 0 5. 9 7. 3 6. 3 8. 2 6. 4	8. 2 6. 4 6. 9 7. 4 5. 8 4. 9 3. 2 6. 4 6. 5 7. 6 7. 4 9. 1 6. 6
											ANN 5' N.;				V I										'		
January February March April May June July August September October November December	30. 02 29. 87 30. 01 29. 98 29. 87 29. 92 29. 97 29. 96 29. 99 30. 08 30. 12	30. 37 30. 16 30. 36 30. 31 30. 16 30. 14 30. 16 30. 12 30. 27 30. 37 30. 48	29. 28 29. 35 29. 58 29. 63 29. 69 29. 70 29. 77 29. 79 29. 63 29. 76	51. 7 48. 3	55. 2 68. 1 71. 9 80. 9 84. 9 88. 5 88. 2 85. 2 77. 4 63. 3 57. 8	80. 7 78. 3 70. 1 58. 3 53. 0	83. 5 89. 1 92. 3 91. 8 88. 2 80. 5 67. 1	40. 9 41. 8 53. 2 56. 9 65. 6 70. 9 73. 3 74. 3 71. 7 62. 9 49. 3 46. 3	50. 5 50. 8 62. 8 66. 2 74. 6 80. 0 82. 8 83. 0 80. 0 71. 7 58. 2 53. 8	75 77 87 92 93 100 100 99 95 89 83 75	22 23 39 38 60 64 64 69 65 48 28 36	39 39 49 53 64 69 72 73 70 62 46 45	41 41 50 52 62	42 42 50 54 64 69 72 73 71 64 48 48	84 82 79 74 78 77 80 86 86 87 81 90	61 62 54 52 54 57 57 57 59 62 62 59 76	74 76 67 70 75 72 75 78 79 82 69 85	0. 272 . 257 . 375 . 430 . 594 . 706 . 771 . 819 . 739 . 574 . 346 . 317	. 278 . 383 . 420 . 561	. 281 . 379 . 443 . 602 . 709 . 786 . 820 . 767 . 620 . 363 . 353	1. 67 1. 85 3. 57 6. 68 3. 23 5. 05 2. 43 1. 25	1. 52 1. 56 . 94 . 87 1. 68 3. 23 1. 34 1. 38 1. 00 1. 08 . 91	0. 0 .0 .0 .0 .0 .0 .0 .0 .0	4. 8 6. 5 5. 9 4. 6 4. 5 3. 9 4. 4 3. 6 5. 1 4. 0 5. 3 5. 6	4. 9 4. 8 4. 5 4. 7 5. 9 6. 8 5. 6 4. 7 8. 2	4. 4 5. 0 4. 3 4. 5 4. 1 2. 8 4. 2 3. 5 3. 6 4. 2 6. 5	5. 5 4. 7 4. 4 3. 6 4. 5 4. 8 5. 9 5. 1 4. 6 7. 5
											ANT				V.]												
January February March April May June July August September. October November. December	29. 01 29. 14 29. 18 29. 07 29. 05 29. 16 29. 24 29. 22 29. 17 29. 36	29. 44 29. 61 29. 78 29. 43 29. 48 29. 54 29. 55 29. 65 29. 71 29. 78	28. 20 28. 56 28. 77 28. 73 28. 73 28. 89 28. 80 28. 39 28. 55	41. 2 56. 3 64. 4 67. 8 66. 5 59. 4 47. 7 33. 8 31. 7	47. 2 50. 2 68. 9 73. 8 81. 1 79. 1 71. 5 57. 0 40. 4	24. 4 45. 2 47. 3 66. 3	52. 8 55. 0 74. 8 78. 2 86. 1 83. 4 75. 5 61. 4 45. 4 42. 2	48. 9 57. 9 61. 3 61. 5 55. 3 43. 7 29. 7 26. 6	43. 4 45. 9 61. 8	46 55 74 82 91 90 103 95 89 78 75 60	-8 -3 13 25 32 46 48 48 35 21 10 5 -8	32 46	11 33 33 44 52 54 59 53 43 27 25	12 34 33 45 54 55 60 55 43 27 26	68 77 78 81 76 72	63 52 58 53 43 50 40 52 53 60 59 62	56 66 60 48 57 46 62 67 66	0. 097 . 079 . 189 . 191 . 333 . 426 . 464 . 571 . 409 . 291 . 161 . 139	. 081 . 200 . 201 . 318	0. 106 . 084 . 205 . 203 . 321 . 437 . 440 . 528 . 446 . 299 . 168 . 149	4. 47 1. 31 5. 25 2. 85 2. 18 6. 75 . 73 4. 58 1. 70 2. 11 2. 59 2. 75 37. 27	. 54 1. 28 . 90 1. 14 2. 76 . 45 1. 20 1. 01 . 40 1. 80 . 97	9. 5 1. 7 T . 0 . 0 . 0 . 0 . 0 T 3. 8 3. 4	6. 7	5. 1 6. 3 4. 6 6. 1 5. 5 7. 1 7. 4	7. 5 4. 9 7. 1 7. 4 4. 0 5. 8 5. 0 6. 0 4. 6 5. 5 6. 2 5. 7 5. 8	4.3 5.3
											TLE				V.]												
January February March April May June July August September. October November December	29. 77 29. 93 29. 95 29. 87 29. 88 29. 89 29. 92 30. 00 30. 17 29. 84	30. 31 30. 36 30. 50 30. 36 30. 10 30. 06 30. 02 30. 30 30. 34 30. 46	29. 09 29. 50 29. 52 29. 28 29. 39 29. 57 29. 59 29. 57 29. 61 29. 87 29. 30	51. 5 56. 1 57. 7 58. 0 52. 9 51. 7 42. 8	67.7	46. 0 39. 1 47. 9 59. 6 64. 9 68. 7 73. 3 74. 5 65. 7 59. 9 50. 2 45. 6	48. 4 41. 9 50. 0 61. 9 67. 5 71. 2 75. 1 76. 0 67. 7 61. 9 52. 7 47. 7	39. 9 30. 7 38. 1 45. 6 50. 4 55. 1 56. 7 56. 8 51. 4 49. 9 39. 4 40. 2	44. 2 36. 3 44. 0 53. 8 59. 0 63. 2 65. 9 66. 4 59. 6 55. 9 46. 0 44. 0	56 52 62 74 82 81 84 89 78 75 67 58	29 19 30 31 43 50 54 46 42 28 31	37 24 35 42 46 52 52 54 49 48 39 39	25 34 42 46 51 52 54 50 49 41	38 26 33 42 45 51 50 53 50 49 41 40	82 68 81 84 84 85 82 86 89 90 86 86	74 60 62 60 58 60 57 61 66 72 75 80	61 57 54 52 55 46 48 58 69	0. 225 . 142 . 207 . 272 . 319 . 382 . 395 . 413 . 355 . 343 . 240 . 242	0. 230 . 147 . 205 . 276 . 315 . 376 . 386 . 413 . 368 . 345 . 265 . 247	. 153 . 194 . 278 . 306 . 373 . 366 . 403 . 360 . 263 . 250	7. 18 4. 64 2. 14 . 72 3. 29 2. 77 . 55 1. 00 1. 40 . 88 1. 05 5. 41 31. 03	1. 66 1. 61 . 75 . 28 . 85 . 95 . 23 . 66 . 80 . 53 . 45 1. 55		4. 6	7. 2 7. 4 7. 6 6. 8 5. 9 5. 9 3. 2 4. 0 5. 0 6. 4 5. 7 8. 6	7. 0 7. 2 7. 2 5. 7 6. 3 5. 9 3. 2 2. 6 3. 9 5. 6 4. 9 7. 7	7. 1 7. 2 7. 5 6. 6 6. 4 6. 0 3. 7 4. 2 4. 6 6. 7 6. 3 8. 4

SAULT STE. MARIE, MICH.

							[H]	=607						RIE 1 ft.;				52 ft	.]										
						,	Wind													1	Jum	ber	of da	ys					
		Вуз	elf-re	gister		Nu	mbe	rofv	vind	s, 8 a	. m.	and	8 p.	m.				Pre	cip- ion	Sr	ow		F	og		axi- im np.	1re 32°		lec- city
Month	Average hourly ve-	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	T or more	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperature or below	Thunderstorm	Aurora
January February March April May June July August September October November December	9. 9 9. 7 8. 9 7. 0 6. 5 6. 9	NW. NW. NW. SE. NW. SE.	Mi. 32 29 38 30 32 24 25 24 27 38 29 31 38	NW. NW. NW. NW. NW. NW. NW. NW. NW.	1 0 2 0 1 0 0 0 0 2 0 0 0 0 0 0 0	2 1 3 0 3 2 2 7 9 5	4 2 0 3 3 7 2 3 3 3 9 3	14 7 5 9 8 7 4 8 13 6 5 11	15 8 17 12 15 9 4 15 19 16 5 22	4 2 2 2 3 3 3 4 0 6 9 2	3 14 6 3 4 7 7 4 5 6 6 5	7 14 14 9 10 13 20 7 4 1 7 6	15 21 16 13 17 15 11 16 8	1 2 1 0 0 1 2 4 3 1 2 1	2 7 5 5 9 11 19 6 7 6 6 1	8 7 10 3 10 9 9 12 10 3 4 2	21 15 16 22 12 10 3 13 13 22 20 28	24 19 21 13 12 9 6 13 12 21 15 16	9 12 11 14	19 15 1 0 0 0 0 9 16 20	24 18 15 8 0 0 0 0 0 2 8 13	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0	10 12 10 8 13 7 3 15 18 18 10 11	1 2 0 1 4 1 0 2 8 5 2 5	25 27 11 8 0 0 0 0 0 1 11 18	0 0 0 0 0 0 0 6 0 0	29 29 26 4 0 0 0 1 14 26 30	0 1 1 2 4 3 3 6 4 0 1	0 0 3 3 3 5 3 0 2 1 1 0
			·		,	·	[H:	=42 f	t.: H					I, G.		t · h		2 ft 1	1	1							l		_
January February March April May June July August September October November December	11. 1 12. 9 12. 0 9. 8 9. 5 10. 7 8. 1 8. 9 10. 3 10. 4	NW. S. SW. E. S. W. S. E. N. NE.	43 46 44 37 36 36 27 26 27 32 30 46	SW.	1 3 5 1 1 1 3 0 0 0 0 1 0	8 10 2 4 3 2 5 8 10 10 11 9	4 8 2 5 4 7 0 1 10 13 8 16	8 7 8 8 20 7 3 8 10 18 9 13	6 5 6 8 10 8 3 4 8 1 4 4	11 6 15 12 13 17 10 20 11 4 3 5	6 11 9 3 7 13 4 4 6 4 4 80	6 4 11 7 4 10 24 13 6 7 14 3	13 7 9 7 5 2 4 4 1 3 7 8	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	15 11 10 13 15 16 12 12 4 11 15 6	2 3 12 6 7 10 14 13 16 9 4 6 102	14 15 9 11 9 4 5 6 10 11 11 11 19	14 13 9 6 7 11 13 11 14 9 6 15	10 11 7 5 6 10 9 10 10 8 2 12	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	10 4 3 2 2 0 0 4 2 5 5 13	3 1 1 0 1 0 0 2 0 4 1 6	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 2 4 12 22 24 10 0 0	5 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 2 0 3 3 8 9 10 6 1 0 0	0 0 0 0 0 0 0 0 0 0
							[H=	746 f	t.; H					r, PA		ft.; h	a=10	04 ft.	]					_					
January February March April May June July September October November December	6.8	SW. SW. SW. SW. SW. SW. SW. SW. SW.		SE. NW. NW. NW. NW. NW. NW. NW. NW. NW. NW	0 0 1 0 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0	14 15 19 8 19 20 17 19 16 19 10 15	2 5 6 6 1 2 3 6 7 4 2 12 56	2 2 0 2 0 5 1 1 3 2 0 3 2 2	3 4 5 5 2 6 2 5 5 1 2 1 41	5 6 10 4 6 5 5 5 3 6 11 6 72	22 14 13 14 24 18 23 20 18 19 15 11	3 2 0 5 0 2 1 2 1 1 3 2 2 2 2	11 8 8 16 10 2 10 3 7 8 17 12	0 0 1 0 0 0 0 1 0 2 0 0	5 8 3 4 14 7 6 5 8 6 2 6 74	8 11 13 13 9 16 22 18 12 12 15 9	18 10 15 13 8 7 3 8 10 13 13 16	16 9 17 14 8 9 6 17 7 13 10 10	11 6 13 11 6 9 4 10 7 11 6 8	21 10 10 8 0 0 0 0 0 2 10 12 73	12 6 5 2 0 0 0 0 0 0 4 3	0 0 0 0 0 0 0 0 0 0 0 0 1	8 7 7 0 7 1 5 13 6 8 7 4 73	4 1 0 0 0 0 0 0 0 0 2 2 1	13 17 2 0 0 0 0 0 0 0 0 3 4	0 0 0 0 0 2 1 7 6 0 0 0 0	28 27 9 10 0 0 0 0 5 21 24	0 0 1 4 6 5 8 9 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
							[H=	14 ft.	; H <sub>b</sub>					,ASI .; h <sub>r</sub> =		t.; h.	=32	1 ft.]											
February March April May June July August September October November	9. 6 10. 8 8. 7 9. 2 8. 2 8. 2 7. 0 6. 8 7. 2	SE. N. S. SE. N. SE. N. N.	34 42 28 28 47 26 24 29 27 29	SW. S. S. SW. S. SW. SE. S. S. S.	5 2 3 0 0 1 0 0 0 0 7	12 16 6 12 13 15 13 9 23 23 19	6 5 3 3 5 4 11 12 7 12 8 5	1 6 2 3 3 3 2 4 2 2 1 3	23 15 13 13 8 18 9 8 8 7 21 20	11 9 15 7 12 7 4 3 2 7 4 18	6 6 12 11 7 6 6 6 6 6 1 1 1		2 1 9 7 9 4 13 14 8 8 2 1	0 0 0 0 0 0 0 0 0 1	5 3 3 4 7 8 16 17 9 6 5 3	8 7 9 10 9 10 10 6 15 10 12 4	18 19 19 16 15 12 5 8 6 15 13 24	19 12 14 7 17 11 4 3 7 6 4 21	15 8 9 5 12 7 3 3 5 2 4 18	0 11 4 2 0 0 0 0 0 0 0 0 0	0 6 3 2 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	6 2 4 6 2 5 0 7 12 15 18	0 0 2 1 0 0 0 0 2 7 9	0 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 19 2 1 0 0 0 0 0 0 0	1 0 0 0 5 1 0 1 1 1 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

2 86 110 170 125 91 19 12 1 84 23

 $[\phi = 44^{\circ}48' \text{ N.: } \lambda = 106^{\circ}57' \text{ W.}]$ 

									[φ=	=44°48	8′ N.;	λ=	106°	57′	W.)												
	F	ressu	ге			7	Гетр	eratur	'e										ī	Moist	ure						
		Extr	emes			M	ean			Ext	remes		Dev poin		Re	elati mid	ive ity	Vap	or pre	ssure	Pre	cipita	tion		Clou	dines	SS
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
February March April April May June July August September October November December	26. 06 26. 08 26. 13 26. 12 26. 18 26. 29	26, 37 26, 36 26, 48 26, 37 26, 35 26, 30 26, 38 26, 48 26, 52 26, 58 26, 36	25. 47 25. 48 25. 68 25. 65 25. 80 25. 91 25. 65 25, 71 25. 87 25. 69	-1.8 25.7 31.4 47.5 57.5 64.0 56.9 45.0 35.4 25.8	26. 9 10. 1 38. 5 51. 4 71. 9 78. 1 90. 1 83. 6 71. 8 57. 6 43. 8 31. 4 54. 6	7. 1 37. 3 51. 4 72. 3 78. 8 89. 9 81. 3 68. 7 51. 8 36. 1 26. 8	16. 2 44. 1 56. 7 77. 4 83. 3 95. 8 88. 4 76. 1 61. 4 48. 6 36. 8	21. 2 27. 7 42. 7 52. 7 60. 0 54. 6 42. 1	19. 5 3. 8 32. 6 42. 2 60. 0 68. 0 77. 9 71. 5 59. 1 46. 3 34. 3 25. 0 45. 0	57 58 62 81 91 106 104 101 92 83 73 56	-13 -38 -17 -10 31 41 48 40 27 12 1 -9 -38	27	1 20 28 35 42 43 43 33 30 23	° 12 -1 19 28 34 42 44 45 35 33 24 17	% 76 79 76 82 68 69 64 70 72 83 79 81	63 49 46 30 31 23 26 28 39 45 60	69 49 45 28 30 25 30 32 52 61 67	In. 0. 073 . 041 . 104 . 161 . 221 . 328 . 380 . 325 . 217 . 173 . 111 . 086 . 185	In. 0. 082 . 057 . 113 . 162 . 206 . 273 . 288 . 282 . 197 . 164 . 126 . 103 . 171	In. 0. 079 . 055 . 106 . 160 . 203 . 273 . 303 . 306 . 207 . 187 . 133 . 096 . 176	In. 0. 76 . 85 1. 48 . 88 . 15 2. 18 1. 07 . 19 . 88 1. 82 . 38 . 50 11. 14	. 20 . 65 . 38 . 12 1. 81 . 76 . 13 . 68 . 52 . 19 . 24	In. 10.8 11.7 15.2 .9 .0 .0 .0 .0 .0 2.2 4.6 5.9 51.3	2. 8 3. 2 3. 4 3. 9 2. 5 4. 4 3. 1 6. 2	6. 5 6. 7 6. 6 5. 5 4. 6 3. 5 4. 0 3. 6 2. 3 4. 7 4. 1 6. 1	5. 4 5. 2 5. 7 5. 7 5. 0 4. 6 4. 9 3. 8 3. 5 4. 9 4. 4 5. 0	6. 3 6. 2 5. 8 4. 1 3. 9 4. 1 3. 8 3. 0 4. 7 4. 2 6. 8
											VEP															,	
January February March April May June July August September October November December	29. 65 29. 79 29. 74 29. 65 29. 71 29. 71 29. 70 29. 81	30. 00 30. 16 29. 93 29. 87 29. 93 29. 90 29. 84 30. 12 30. 27	29, 35 29, 22 29, 43 29, 34 29, 45 29, 45 29, 60 29, 54 29, 38	38. 0 38. 6 55. 5 56. 4 67. 3 75. 1 76. 8 77. 8 74. 0 57. 4 47. 1 46. 0 59. 2	48. 4 47. 6 68. 6 70. 6 79. 1 89. 7 87. 8 92. 8 88. 1 72. 3 59. 6 55. 1 71. 6	49. 1 49. 3 68. 8 69. 8 77. 1 90. 0 86. 3 90. 3 90. 3 56. 8 55. 4 70. 6	54. 4 54. 1 74. 0 75. 7 83. 5 95. 2 92. 8 97. 3 91. 8 75. 6 64. 2 60. 7 76. 6	34. 8 35. 1 53. 4 53. 8 65. 4 72. 5 73. 9 75. 8 72. 7 55. 4 44. 4 43. 2	44. 6 44. 6 63. 7 64. 8 74. 4 83. 8 83. 4 86. 6 82. 2 65. 5 54. 3 52. 0 66. 7	76 80 87 92 89 104 100 109 101 90 86 75	17 13 42 35 56 65 64 64 57 44 30 31	32 32 47 46 61 65 72 70 70 52 40 41	35 35 45 45 59 62 70 66 66 52 40 42 51	62 69 66 66 52 39 42	82 73 84 78 86 83 78 84	64 47 43 53 42 57 42 49 52 52 64	60 46 47 57 40 59 46 53 58 56 63		0. 220 . 225 . 327 . 334 . 511 . 581 . 729 . 646 . 660 . 403 . 274 . 284	. 221 . 322 . 342 . 517 . 560 . 724 . 636 . 639 . 399 . 266	1.77 1.40 2.65 2.18 2.69 3.27 39 .84 4.09 2.34 4.43 26.44	0. 64 . 48 2. 06 1. 20 1. 61 . 23 1. 31 . 36 . 44 1. 93 . 96 1. 42 2. 06	.0	6.4	6. 3	5. 2 5. 5 3. 1 5. 3 4. 8 4. 9 3. 9 3. 4 4. 9	4. 7 5. 8 4. 6 4. 9 5. 5 2. 5 5. 2 4. 0 4. 6 4. 1 4. 0 5. 7
											CIT																
February 2 March 2 April 2 May 2 June 2 July 2	8. 09 2 8. 71 2 8. 85 2 8. 82 2 8. 92 2 8. 84 2	29. 18 2 29. 16 2 29. 21 2 29. 12 2 29. 06 2 29. 06 2 29. 19 2 29. 98 2 29. 23 2 9. 34 2 9. 34 2 9. 21 2	28. 14 28. 00 28. 37 28. 22 28. 05 28. 38 28. 40 28. 35 28. 30 28. 42 28. 25	37. 2 59. 3 64. 9 77. 2 71. 6 61. 3 43. 2 29. 8 24. 3	73. 7 78. 9 95. 4 88. 5 75. 0 56. 9 40. 7 29. 9	52. 9 74. 4 80. 0 95. 7 1 87. 2 73. 0 54. 9 38. 9 28. 3	10. 5 48. 5 58. 0 78. 2 84. 8 100. 2 93. 1 79. 9 62. 7 46. 0 34. 7	56. 5 59. 8 74. 1 68. 9 57. 9 39. 5 25. 6 19. 4	87. 2 81. 0 68. 9 51. 1 35. 8 27. 0	39 44 73 84 92 105 111 108 95 83 68 52 111	45 57 55 37 21 8 -7	51 56 56 54 34 24 22	29 49 52 54 56 52 35 27 23	2 29 30 50 54 55 56 53 35 27	90 78 72 74 63 50 61 77 72 77 88	77   8   6   6   6   6   6   6   6   6   6	85 62 46 46 43 27 38 53 49 64	. 165 . 374 . 389 . 464 . 469 . 440 . 210 . 128 . 124	. 048 . 145 . 174 . 359 . 410 . 428 . 477 . 436 . 221 . 148 . 131	. 056 . 167 . 183 . 375 . 427 . 446 . 464 . 450 . 222 . 149	2. 04 . 18 1. 66 2. 07 . 99 . 34 1. 16	. 34 2. 23 1. 23 . 11 . 80 . 78 . 55 . 10	25. 0 2. 1 2. 4 .0 .0 .0 .0 .0 .2 2. 3 9. 1	6. 4 6. 3 6. 1 5. 7 4. 8 2. 5 5. 1 4. 4 4. 1 6. 0	6. 9 6. 8 6. 4 6. 5 5. 2 3. 2 5. 0 4. 6 4. 5 4. 8 7. 0	6. 6 4. 8 5. 9 5. 0 2. 9 2. 1 3. 4 4. 5 4. 2 3. 1 6. 1	6. 4 6. 9 6. 1 5. 8 4. 8 2. 7 4. 8 4. 5 4. 5 5. 4
									SI $[\phi = 4]$		ANE, N.; λ				.]												_
January	7. 92 2 7. 97 2 7. 90 2 7. 90 2 7. 90 2 7. 93 2 7. 98 2 8. 06 2 8. 30 2 7. 92 2	8. 39 2 8. 37 2 8. 24 2 8. 15 2 8. 09 2 8. 16 2 8. 37 2 8. 39 2 8. 39 2 8. 39 2 8. 47 2	7. 36 5. 56 7. 48 7. 54 7. 61 7. 70 7. 59 7. 64 7. 82 7. 48	13. 2 32. 7 42. 4 50. 7 55. 8 59. 2 58. 0 48. 4 42. 0	20. 1 42. 3 58. 3 69. 1 70. 9 81. 1 79. 7 66. 3 58. 8 36. 7 335. 8	22. 5 45. 1 61. 3 73. 3 75. 2 86. 3 82. 7 70. 1 62. 3 37. 9	24. 6 47. 0 63. 3 74. 6 76. 7 87. 5 85. 0 72. 1 65. 4 41. 2	10. 1 30. 4 41. 1 49. 4 54. 3 58. 1 57. 0 46. 1 38. 9 23. 4 28. 1	71. 0 59. 1 52. 2 32. 3 33. 0	63 86 93 97 103 98 85 80 60 54	-16 18 14 40 46 49 45 36 29 10 4	10 27 33 40 46 43 42 41 34 22 28	13 26 32 37 44 41 39 36 26 30	15 8 26 8 31 8 35 6 42 7 37 8 37 8 37 8 37 8 38 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	87   380   871   388   372   486   4875   48	73	73	150 198 252 319 284 265 265 204 118 158	087 146 188 229 295 264 257 249 220 138 166	. 098 . 145 . 184 . 213 . 276 . 225 . 224 . 230 . 213 . 140	1. 57 . 58 . 18 . 57 2. 33 . 07 . 23 1. 64 . 28 . 08 2. 39	. 16 . 24 1. 06 . 04 . 20 1. 01 . 20 . 08	1. 2 2. 1 0 0 0 0 0 0 0 0 7 T 7 9. 5	6. 5 6. 7 6. 7 6. 7 6. 7 6. 8 4. 8 4. 8 6. 2 2. 2 2. 2 3. 9 4. 8 6. 9 8. 9 8. 4	6. 9 6. 8 5. 3 5. 2 6. 0 2. 3 3. 0 4. 2 2. 9 4. 7	6. 7 6. 2 6. 0 4. 5 5. 0 1. 8 2. 5 3. 8 5. 2 8. 7	7. 8 7. 2 6. 5 5. 6 5. 1 5. 6 2. 3 2. 7 3. 7 3. 2 5. 0

SHERIDAN, WYO.

	1						[H=	h <sub>t</sub> =	10 ft.	; h <sub>r</sub> =	=3 ft.	; h <sub>a</sub> =	=47 f	t.]															
							Wind	1												N	Jum	ber	of da	ys,					
		Bys	elf-re	gister		Nu	mbe	rof	wind:	s. 8 a	. m.	and	8 p.	m.				Pre itat		Sr	10W		F	og	mı	axi- im np.	ure 32°		lec- city
Month	Average hourly velocity	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	£	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperatu	Thunderstorm	Aurora
January February March April May June July August September October November December	Mi. 5. 4 5. 4 6 6 5. 9 5. 5. 2 5. 0 4. 9 5. 1 5. 2 4. 8 5. 4	NW. NW. NW. NW. NW. NW. NW. NW. NW.	Mi. 32 32 30 22 31 23 25 27 24 25 30 24 32	NW. NW. NW. NW. NW. SE. S. NW. NW.	1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 2 2 3 5 3 2 5 1	6 6 6 11 4 2 4 3 2 2 5 5 5 5 5 5	4	3	14 13 13 11 10 10 8 12 9 16 23 15	7 6 2 3 3 2 9 4 4 9 5 6 60	6 6 4 4 2 2 4 3 4 1 2 0 4	27 17	0 1 0 2 4 4 5 4 3 4 1 0	4 5 6 6 15 14 15 18 18 13 16 3	11 13 13 14 12 10 10 9 10 8 6 13	16 11 12 10 4 6 6 4 2 10 8 15	10 12 10 11 3 9 7 4 4 9 6 8	5 10 5 5 1 6 5 1 3 8 4 3	12 20 15 5 0 0 0 0 6 7 13	9 12 9 4 0 0 0 0 0 4 5 8	000000000000000000000000000000000000000	2 3 1 1 1 0 0 0 0 0 1 5	0 1 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	16 22 7 4 0 0 0 0 0 0 4 10	0 0 0 0 0 4 10 28 16 2 0 0	29	0 0 0 1 2 7 7 7 7 1 0 0 0	0 0 0 0 1 1 1 0 0 0 0 1 0 0 4
							ਜ=	: 197 1	ft.; H			VE				64 · }		07 ft	)										_
January	11. 2	NE.	31	S.	0	5		5		8	4	10	6	0., 11			8 8			3	3	1	6	7 0	0		10	9	
February March April May June July August September October November December Year	11. 4 12. 1 12. 4 9. 6 9. 9 9. 7 8. 3 10. 1 9. 8 10. 7 10. 4	NE. S. S. S. S. S. NE. NE. SE.	45 34 35 27 35 29 25 28 46 30 52	NW. NW. SW. NE. S. E. NW. NW.	0 5 3 2 0 1 0 0 0 1 0 1 1 1 1 3	2		2 5	10 14 6 7 16 3 11 15 11 8 6 20	10 21 14 3 16 12 11 19 11 5 7	1 7 13 1 15 23 14 10 3 2 0	10 1 3 4 0 1 4 6 1 7 6 2 45	6 9 6 3 5 1 4 5 7 10 8	0 0 0 0 0 0 0 0 0 0 0	12 12 13 13 8 21 10 15 12 18 16 10	11 5 13 7 14 7 12 11 12 3 5 9	12 5 10 9 2 9 5 6 10 9 12	7 9 6 5 12 4 6 4 4 6 8 77	6 6 4 5 7 2 6 1 2 5 4 6 5 4	3 1 0 0 0 0 0 0 0 0 0	3 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 1 0 0 0 0 0 0	6 5 6 2 3 0 0 1 0 2 8 8 8 41	0 0 0 0 1 0 0 1 0 0 0 1 1 0	0 0 0 0 0 0 0 0 0	0 0 0 1 0 26 22 29 24 0 0	12 13 0 0 0 0 0 0 0 0 0 1 3 29	2 1 3 3 8 4 7 8 2 2 0 2	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
						[1	H=1,	111 f	t.; H			CI' t.; h <sub>t</sub>				7 ft.;	ha=	106 f	t.]										
April May June July August September October	11. 3 11. 0 9. 8 9. 6 9. 0 9. 5 9. 2 9. 5 10. 4 9. 5	NW. NW. NV. S. S. S. S. NW. SE.	27	NW. NW. NW. SW. NW. NW. S. NW. NW.	0 3 2 2 0 1 2 1 3 2 3 0	7 11 12 16 6 8 6 7 11 14 7 9	4 6 4 5 10 10 11 8 5 6 5 4	4 5 2 4 7 11 6 9 5 2 3 1	10 9 10 9 7 13 7 11 15 6 9 20	4 4 6 6 13 12 24 14 14 10 10	6 0 2 3 3 1 2 4 2 3 3 2	3 0 2 2 3 0 2 1 1	24 23 24 15 13 5 4 7 5 16 22 14	0 0 0 0 0 0 0 0 0 0 0	8 6 8 7 8 9 19 12 14 13 14 8	7 9 10 6 13 13 11 13 8 11 7 5	16 14 13 17 10 8 1 6 8 7 9 18	13 15 4 5 11 7 4 6 12 5 4 6	8 13 2 5 11 5 2 4 6 3 4	20 18 8 5 0 0 0 0 0 2 6 9	13 15 3 1 0 0 0 0 0 0 2 3 3 40	0 0 0 0 0 0 0 0 0 0 0 0	3 2 2 2 3 1 0 0 7 4 1 11	0 0 0 0 1 0 0 0 0 0 1 0 0 7	27 24 3 3 0 0 0 0 0 0 0 0 3 11	0 0 0 0 3 12 26 22 7 0 0 0	31 29 22 11 0 0 0 7 23 29 152	0 0 2 4 8 7 6 11 4 2 0 0 0	0 0 0 0 0 0 0 0 0 0 0
						[H	=1,8	79 ft.	.; H <sub>b</sub>			ANE				<b>1</b> ft.;	ha=	110 f	t.]										
January February March April May June July August September October November Pear Year Year Year Year Year February March Marc	8. 4 7. 2 7. 7 7. 1 6. 2 6. 0 5. 3 4. 4 4. 2	s.N.s.s.s.s.s.s.s.n.s.	25 22 31 21 22 19 24 18 16 24	S. S.W. S.W. S. S. S.W. N. S. S. S. S. S. S. S. S. S. S. S. S. S.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8 10 2 3 2 2 2 3 3 t. 7 24 5	6 13 6 6 6 9 7 4 4 12 6 5	7 7 7 12 5 9 3 8 10 6 11	3 0 2 2 2 1 1 2 1 0 0 0 0	17 12 18 13 22 21 21 20 16 14 8 27	12 8 20 14 15 10 13 14 9 3 1 5	7	3 3 3 4 5 5 1 2 3 11 8 8	4 3 1 3 2 1 3 6 2 0 1	4 7 3 9 12 9 23 20 17 18 12 0	6 4 16 10 12 10 4 9 6 10 8 5	21 18 12 11 7 11 4 2 7 3 10 26	15 15 5 3 8 4 3 7 4 1 14 87	8 3 1 6 6 1 1 5 3 1 8	16 15 12 0 0 0 0 0 0 1 1 10	12 13 3 0 0 0 0 0 0 0 0 0 0 0 0 0 3 7	0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	13 7 3 0 0 0 0 0 0 2 5 12 13	5 0 0 0 0 0 0 0 0 1 5 2	5 22 1 1 0 0 0 0 0 6 8 43	0 0 0 0 2 3 12 5 0 0 0 0	22 26 19 5 0 0 0 0 4 30 20	0 0 0 0 7 4 1 2 1 0 0 0	0 0 0 0 0 0 0 2 0 1 2 4 5 0

 $[\phi=39^{\circ}48' \text{ N.; } \lambda=89^{\circ}39' \text{ W.]}$ 

	F	ressui	re			Т	'empe	rature			9. 14.				,		•		1	Moist	ure						
		Extr	emes			M	ean			Exti	emes		Dev			lativ midi		Vapo	or pre	ssure	Pre	cipita	tion		Clou	dines	39
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	00	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
January February March April May June July August September October November December	29. 40 29. 21 29. 36 29. 37 29. 26 29. 26 29. 29 29. 32 29. 39 29. 48 29. 48	29. 62 29. 72 29. 74 29. 56 29. 71 29. 59 29. 72 29. 83 29. 91 29. 86	28. 60 28. 77 28. 88 28. 95 28. 68 29. 00 29. 07 28. 93 28. 89 29. 02 28. 71	17. 9 15. 1 37. 8 42. 2 61. 3 66. 3 76. 9 73. 5 65. 6 50. 0 34. 1 32. 4 47. 8	23. 6 23. 9 50. 5 55. 9 77. 0 82. 1 93. 3 89. 6 77. 8 62. 7 43. 9 39. 6 60. 0	22. 2 22. 5 48. 6 54. 3 74. 1 81. 0 92. 3 87. 6 74. 0 58. 3 41. 3 36. 9	80. 3 87. 1 98. 3 94. 1 82. 2	35. 0 40. 1 58. 0 61. 3 74. 1 70. 9 63. 3 47. 5 31. 5	21. 2 19. 7 45. 0 50. 4 69. 2 74. 2 86. 2 82. 5 72. 8 56. 6 40. 0 35. 8	l i	-16 -9 21 20 43 51 58 60 46 30 15 6	12 32 35 52 52 62 63 60 44 28	35 35 52 54 59	18 19 35 36 52 53 60 62 61 48 30 29	% 85 88 81 75 72 62 62 70 82 81 78 82 76	76 58 49 45 40 35 42 59 56 58 66	84 60 53 50 40 35 45 66 68	In. 0. 105 . 096 . 193 . 220 . 402 . 402 . 571 . 580 . 312 . 164 . 163	In. 0. 117 . 117 . 214 . 231 . 414 . 432 . 515 . 576 . 556 . 328 . 175 . 171	. 126 . 214 . 236 . 415 . 411 . 525 . 580 . 554 . 350 . 179 . 167	1. 74 3. 61 2. 20 1. 88 1. 14 1. 36 1. 61 6. 06 2. 54 2. 30	2. 85 . 84 2. 26 1. 07	1. 6 1. 2 . 3 . 0 . 0 . 0 . 0 . 0 . T	5. 8 5. 1 5. 6 4. 1 3. 9 3. 8 3. 7 5. 6 4. 8 3. 3 5. 8	5. 8 6. 1 4. 6 4. 0 2. 8 3. 6 6. 8 5. 4 4. 0 5. 6	5. 2 5. 3 5. 7 4. 8 5. 0 4. 2 3. 5 3. 3 5. 1 4. 5 3. 3 5. 4 4. 6	6. 6 6. 0 5. 5 5. 4 4. 6 4. 0 3. 3 3. 9 6. 0 5. 4 4. 1 5. 8
											NGFI 2' N.;																
February March March May June July August September October November December	28. 48 28. 63 28. 64	29, 02 28, 81 28, 92 28, 91 28, 80 28, 80 28, 80 28, 88 29, 03 29, 05 28, 98	28. 00 28. 11 28. 11 28. 30 28. 07 28. 33 28. 43 28. 21 28. 37 28. 27 28. 03	23. 8 22. 5 42. 9 47. 3 62. 6 70. 3 76. 0 75. 9 67. 3 50. 8 37. 2 37. 1	30. 7 29. 5 56. 5 59. 4 74. 1 83. 5 90. 9 89. 7 78. 9 61. 1 48. 1 43. 4 62. 2	30. 6 30. 9 56. 1 59. 8 74. 2 83. 8 90. 6 90. 4 76. 4 58. 9 46. 4 42. 5 61. 7	36. 1 37. 0 62. 2 65. 3 78. 2 88. 8 95. 4 95. 1 83. 2 65. 2 52. 8 48. 9 67. 4	20. 0 18. 1 39. 6 43. 8 59. 9 66. 5 72. 9 73. 8 65. 3 48. 6 33. 3 33. 9	28. 0 27. 6 50. 9 54. 6 69. 0 77. 6 84. 2 84. 4 74. 2 56. 9 43. 0 41. 4 57. 6	68 74 78 88 86 101 106 105 97 80 75 63	-6 -8 27 17 48 54 60 63 48 33 22 14 -8	18 17 33 37 55 58 64 61 46 29 32 43	21 19 35 38 54 57 59 58 61 48 29 33 43		78 68 70 76 65 68 61 81 83 72 80	66 45 50 51 43 35 38 35 57 62 48 68	67 45 45 51 42 34 35 60 68 53 71	. 118 . 192 . 248 . 439 . 481 . 616 . 542 . 546 . 317 . 174 . 190	0. 136 124 213 254 424 483 507 499 540 326 174 199 323	0. 125 . 135 . 206 . 233 . 422 . 465 . 486 . 476 . 517 . 339 . 181 . 200	0. 17 1. 01 1. 29 2. 37 2. 37 2. 05 1. 11 7. 29 5. 27 1. 38 2. 60 27. 69	0. 07 .64 .74 .93 .67 1. 23 .42 .30 2. 37 1. 66 1. 38 .95	.3 .0 .0 .0 .0 T T	4. 6 3. 0	6. 6 5. 7 4. 5 4. 3 5. 1 2. 0 2. 5 4. 2 6. 2 5. 7 5. 7 5. 8 4. 6	6. 2 4. 6 4. 3 3. 7 4. 6 2. 8 3. 9 4. 1 4. 7 2. 2 4. 8 4. 3	5. 8 4. 3 3. 2 3. 7 3. 8 1. 3 2. 1 3. 3 5. 2 4. 7 2. 8 5. 5
											ACU				V.]												
November . December .	29. 45 29. 41 29. 37 29. 57	29. 75 29. 91 30. 02 30. 05	28. 96 28. 59 28. 74	21. 5 17. 6 35. 6 40. 9 59. 3 65. 8 70. 9 67. 1 60. 4 49. 7 34. 5 31. 2 46. 2	25. 4 22. 4 41. 8 46. 5 66. 9 73. 1 79. 7 76. 8 70. 3 55. 6 37. 8 35. 3		29. 0 26. 4 46. 7 51. 0 71. 5 78. 5 83. 7 82. 4 74. 1 61. 5 43. 6 41. 2	17. 6 12. 1 31. 3 36. 0 50. 6 57. 9 62. 3 60. 4 54. 4 44. 9 28. 9 25. 3 40. 1	23. 3 19. 2 39. 0 43. 5 61. 0 68. 2 73. 0 71. 4 64. 2 53. 2 36. 2 33. 2 48. 8	44 53 68 82 89 91 102 95 91 80 72 62	0 -1 7 24 32 47 48 50 36 23 8 1	16 12 28 32 45 51 56 56 52 42 26 24	18 12 28 31 45 50 51 53 52 41 27 25		61 60 68 73 74 71 74	72 - 62 - 61 - 57 - 47 - 46 - 54 - 66 - 56 - 56 - 56 - 66		. 164 . 192 . 324 . 393 . 455 . 453 . 402 . 283 . 154	0. 103 . 080 . 165 . 188 . 321 . 379 . 389 . 422 . 408 . 284 . 162 . 139		3. 18 1. 90 5. 97 2. 85 1. 63 . 57 . 67 2. 44 3. 01 3. 44 3. 80 1. 89	1. 26 . 45 . 69 . 23 . 44 . 56 . 70 1. 14 1. 51 . 94	15. 5 8. 8 3. 5 0 0 0 0 T 14. 3 10. 8	9. 4 8. 2 6. 9 8. 5 5. 6 5. 9 3. 8 5. 7 6. 9 8. 6 7. 0	8. 7. 6. 6. 7. 8. 2. 6. 2. 6. 1. 5. 0. 6. 1. 6. 3. 6. 9. 7. 5. 7. 8. 6. 9		8.8 7.0 7.7 8.5 5.7 6.0 4.5 6.1 5.8 6.7 8.3 7.6
									$[\phi =$		MP#				7.]						~						
January February March April May June July August September. October November. December.	30. 02 29. 94 30. 04 29. 94 29. 89 30. 00 29. 98 29. 96 29. 96 30. 07 30. 08	30, 37 30, 16 30, 30 30, 12 30, 10 30, 14 30, 13 30, 08 30, 16 30, 37 30, 35	29. 67 29. 56 29. 77 29. 63 29. 67 29. 82 29. 84 29. 81 29. 79 29. 89 29. 85	56. 5 54. 0 61. 8 66. 6 72. 5 76. 0 79. 1 78. 0 77. 2 72. 4 59. 7 58. 6	66. 6 65. 8 71. 2 77. 8 82. 7 85. 1 86. 3 87. 4 86. 9 82. 6 72. 3 69. 7	62. 4 62. 1 66. 5 72. 5 77. 6 79. 7 80. 9 79. 5 76. 5 66. 1 64. 6	70. 0 70. 3 74. 0 81. 2 86. 2 88. 3 90. 0 90. 4 89. 8 85. 1 75. 3 73. 0	53. 6 51. 7 59. 6 62. 9 68. 3 71. 6 74. 8 74. 0 73. 1 69. 7 57. 7 56. 7	61, 8 61, 0 66, 8 72, 0 77, 2 80, 0 82, 4 82, 2 81, 4 77, 4 66, 5 64, 8 72, 8	83 78 84 87 91 92 94 94 93 89 86 83		53 50 56 59 66 71 74 74 73 68 54 56 68	56 63 67 70 70 70 67 56 59	57 61 66 69 72 73 72 68 58	87 83 78 81 84 83 88 86 86 80 93	65 59 49 52 57 60 58 58 61 70 8	74 72 67 67 71 73 77 79 76 77	. 384 . 478 . 529 . 645 . 751 . 827 . 837 . 802 . 698 . 458 . 466	. 465 . 483 . 580 . 676 . 740 . 745 . 737 . 673 . 490 . 510	0. 450 . 423 . 488 . 547 . 635 . 703 . 784 . 807 . 787 . 703 . 514 . 504	. 93 3. 61 4. 69 8. 85 7. 59 4. 63 2. 67 . 70 2. 22	1, 32 2, 96 1, 03 , 86 1, 39 1, 11 3, 53 3, 01 1, 98 1, 60 , 52 1, 06 3, 53		4. 1 4. 1 5. 1	5. 6 4. 8 5. 7 3. 4 4. 0 6. 1 5. 1 5. 1 4. 8 6. 5	5. 2 4. 7 5. 6 2. 8 3. 3 4. 2 7. 2 6. 2 6. 2 3. 1 3. 0 5. 2	5. 9 5. 2 5. 9 3. 4 4. 2 4. 3 6. 1 4. 7 5. 2 4. 5 4. 4 6. 0 5. 0

				`			1}	I=59	8 ft.;	H <sub>b</sub> =	=636	ft.; h	1t=5	ft.;	h <sub>r</sub> =3	3 ft.;	ha=1	l91 ft	.]										
			_				Win	d												1	Num	ber	of da	ıys					
		By	self-r	egister		N	umb	er of	wind	s, 8 a	ı. m.	and	8 p.	m.				Pre	cip-	Sı	now		F	og	mı	axi- um np.	ire 32°		lec- city
Month	Average hourly velocity	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	T or more	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperature or below	Thunderstorm	Aurora
January February March March April May June July August September October November December	13. 2 12. 4 11. 1 10. 8 9. 6 10. 5 10. 5 10. 9 12. 1 11. 9	S. S. NW. S.	Mi 36 34 44 35 38 32 44 429 28 34 45 5	NW. NW. NW. NW. NW. NW. NW. NW. NW. NW.		5 4 8 7 7	5 5 7 13 8 12 5 5	7 13 12 11 3 8 14 10 3	6 9 5 7 5 8 2 6 7 4 4 9 72	10 7 4 9 18 9 7 16 16 20 10 16	3 2 3 1 5 7 5 6 5 11 9 9	8 7 11 5 1 3 12	9 6 5 11 4 4 8 2 5 8 12 7	000000000000000000000000000000000000000	8 10 9 12 14 16 17 16 8 11 15 12	5 5 11 7 9 8 11 13 12 5 8 6	18 14 11 11 8 6 3 2 10 15 7 13	14 9 8 10 9 7 7 7 10 11 2 7	111 6 7 7 6 6 6 6 6 6 9 7 2 2 7	16 10 5 5 0 0 0 0 0 1 5 4 4	11 5 3 4 0 0 0 0 0 0 0 0 1 2	0 0 0 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0	8 6 1 6 1 0 0 2 3 7 3 4 4 41	2 1 0 0 0 1 0 0 0 0 2 1 2	14 15 0 1 0 0 0 0 0 0 0 1 2 33	0 0 0 0 0 11 25 21 11 0 0 0	25 10	0 2 3 3 7 6 9 7 5 4 1 0	0 0 0 0 0 0 2 0 0 0 0 0
						[	H=1	,301 1	t.; H			NGF lt.; h				36 ft.	: ha=	= 104	ft.]										
January February March April May June July August September October November December	10. 8 11. 9 11. 1 9. 5 8. 4 9. 3 9. 5 9. 6 10. 0 10. 5	SE. SS. SS. SS. SS. SS. SS. SS. SS.	28 34 32 32 26 37 40 24 28 26 30 30	W. S. S. SW. NW. SW. NW. SW. NW. SE.	000000000000000000000000000000000000000	9 8 3 8 6 5 7 5 7			6 12 12 12 21 7 9 12 17 17 6 26	9 6 11 11 17 14 22 20 15 11 11 14	5 3 4 3 4 9 11 10 3 3 7 1	9 6 8 4 1 4 3 2 4 8 9 2	13 11 12 10 4 2 1 1 1 3 7 17 7	0 0 2 2 0 1 0 1 2 0 1 0 1	8 15 19 19 13 26 25 17 9 14 21 11	10 5 8 4 14 4 6 12 13 6 5 8	13 9 4 7 4 0 0 2 8 11 4 12	7 8 5 9 10 7 6 8 14 10 1 10 95	1 6 3 6 10 6 5 6 12 6 12 6 11 8	12 7 0 4 0 0 0 0 0 0 1 1 1 5	3 5 0 2 0 0 0 0 0 0 0 3 13	0 0 1 1 0 1 1 0 0 0 0 0 0	11 8 0 5 3 0 0 1 7 9 2 10	0 3 0 0 1 0 0 0 0 0 1 0 0 0 1 0 0 1	12 13 0 1 0 0 0 0 0 0 0 0 0	0 0 0 0 0 16 25 24 13 0 0	28 23 6 6 0 0 0 0 0 12 14 89	0 1 3 2 10 7 6 4 10 4 1 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
							[H=	400 f	t.; H			ACU; h <sub>t</sub> =				ft.; l	1a=7	9 ft.]											
January February March April May June July September October November December Year Year March May Year Year Year March	7. 9 7. 2 7. 1 6. 4 7. 0 8. 0 8. 6 8. 3	W. SW. W. W. W. S. NW. S. S. S. S. S. S. S.	25 24 26 25 22 21 23 24 21 26 24 27	W. S. W. SW. SW. N. N. N. N. N. N. S. S.	000000000000000000000000000000000000000	3 2 2 3 2 3 10 4 3 6 4 3 4 5	1 1 0 1 1 0 0 3 1 1 0	12 12 13 9 6 3 6 11 12 7 2 14	5 2 7 4 4 5 7 0 6 9 3 7 7	11 8 9 12 4 14 15 14 25 16 17	6 13 8 7 14 5 1 3 3 11 10 4 85	22 11 7 8 15 11	9 5 7 7 7 7 11 17 12 8 1 5 6	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 5 4 1 8 8 12 6 8 7 3 5	4 8 6 5 13 13 14 15 11 8 4 5	25 16 21 24 10 9 5 10 11 16 23 21	16 22 22 13 10 5 14 13 16	10 20 16 8 5 4 8 10 12 14 9	24 23 14 9 0 0 0 0 0 0 4 18 11	17 14 9 6 0 0 0 0 0 14 7	0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 10 3 1 1 0 2 6 4 2 9	0 0 3 0 1 0 0 0 0 0 0 0 0	14 20 3 0 0 0 0 0 0 6 7	0 0 0 0 0 0 1 6 5 2 0 0 0	27 27 13 13 1 0 0 0 4 19 21	0 0 0 2 5 2 5 4 3 1 1 0	0 0 0 0 1 0 0 0 0 0 0 0 0 0
							(H=	23 ft	.; H	=35		MP2 a <sub>t</sub> =88	-		81 ft	.; ha	=197	ft.]											
February   1 March   1 April   1 May   1 June   1 July   1 August   1 September   1 November   1 December   1	12. 4 11. 2 11. 6 11. 9 9. 8 9. 9 9. 4 9. 2 0. 7 11. 5 11. 1	S. NE. S. E. E. W. E. NE. NE. NE. NE. NE. NE. NE. NE. NE.	34 31 42 32 43 40 32 30 36 24	SW. N. NW. W. E. E. S. NE. E. SW. NW.	1 2 1 0 3 1 4 2 1 0 1 0 1	11 8 3 9 7 5 4 7 4 14 21 11 104	8 15 2 4 8 7 5 6 11 24 19 17	10 10 12 18 28 20 11 29 19 10 13 13	7 9 2 5 4 12 10 9 7 5 0 5	10 7 15 7 3 5 4 7 4 1 6	4 2 7 5 1 2 5 0 0 2 0 2	0 5 8 16 1 6 1 3 4	6 4 4 3 4 4 3 4	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7 10 11 18 13 13 6 11 3 13 14 8	10	3 4 7 6 12	10 2 11 14 16 17 14 8	7 3 8	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8 5 3 0 1 0 0 1 0 5 7	5 1 1 1 0 0 0 0 0 0 0 0 0 0 0 5 1 1 1	0 0 0 0	0 0 0 0 0 1 9 18 22 16 0 0 0	0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 5 2 7 9 16 12 18 7 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

TATOOSH ISLAND, WASH.

 $[\phi = 48^{\circ}23' \text{ N.}; \lambda = 124^{\circ}44' \text{ W.}]$ 

	1								[φ=	48°28	3′ N.;	λ=	124	44′	w.J												
	I	Pressu	re			T	'empe	ratur	9										1	Moist	ure						
		Exti	emes			M	ean			Exti	remes		Dew			elati mid		Vapo	or pre	ssure	Pre	cipita	tion	(	Clou	dines	SS
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
January February March April May June July August September October November December	29. 78 29. 96 30. 00 29. 92 29. 88 29. 95 29. 96 29. 98 30. 04 30. 18 29. 84	30. 37 30. 52 30. 45 30. 16 30. 14 30. 09 30. 37 30. 40 30. 48 30. 49	29. 57 29. 61 29. 42 29. 45 29. 59 29. 58 29. 55 29. 64 29. 83 29. 32	41. 1 46. 2 50. 4 54. 9 56. 2 55. 3 50. 9 50. 3 46. 4 44. 7	45. 5 38. 1 43. 9 49. 6 53. 5 59. 4 60. 3 58. 9 54. 0 52. 8 48. 5 46. 0	49. 1 53. 2 58. 9 60. 3 59. 1 53. 9 52. 0 47. 7	40. 0 45. 3 52. 1 55. 8 61. 6 62. 7 61. 6 56. 7 55. 2 50. 8 48. 0	44. 8 48. 9 53. 8 54. 8 53. 3 49. 0 47. 9 43. 8 42. 0	41. 8 48. 4 52. 4 57. 7 58. 8 57. 4 52. 8 51. 6 47. 3 45. 0	51 48 52 61 70 66 68 68 66 66 68 53	37 21 30 34 44 51 51 49 46 40 37 33 21	39 29 37 42 47 52 53 53 49 48 42 41	38 27 34 43 48 54 55 55 50 48 42 40 44	38 28 35 43 48 53 55 56 50 48 42 40 45	% 84 75 84 87 89 91 91 92 92 86 86 86	71 79 82 81 82 88 86 86 81 81	% 79 67 74 81 83 81 82 88 87 89 82 83 81	In. 0. 244 . 166 . 223 . 276 . 324 . 392 . 408 . 409 . 344 . 335 . 272 . 258 . 304	In. 0. 236 . 158 . 206 . 281 . 335 . 410 . 431 . 434 . 357 . 342 . 275 . 255 . 310	. 209 . 284 . 335 . 403 . 441 . 360 . 344 . 272 . 250	7. 67 3. 98 4. 33 5. 93 2. 74 2. 52 1. 45 3. 54 2. 85 11. 05	1. 45 2. 03 . 97 1. 44 . 72 2. 24 . 95 1. 76 1. 09	In. 0. 0 4. 6 1. 2 T . 0 . 0 . 0 . 0 . 0 . 0 T 5. 8	4. 0 4. 7 4. 7 8. 3	7. 4 6. 4 8. 1 6. 4 4. 8 6. 2 5. 3 5. 5 5. 1	6.8 7.2 7.3 7.5 6.2 4.1 5.5 4.7 4.8 5.2 7.1	7. 7 8. 0 8. 7 6. 9 5. 0 7. 0 7. 1 6. 4 6. 0 7. 7
											E HA		,														
January February March April May June July September October November December	29. 46 29. 26 29. 41 29. 44 29. 30 29. 31 29. 36 29. 39 29. 45 29. 55	29, 79 29, 68 29, 83 29, 77 29, 61 29, 75 29, 65 29, 75 29, 84 29, 95 29, 96	28. 84 28. 88 29. 05 28. 80 29. 05 29. 14 29. 04 28. 97 29. 11 28. 88	19. 4 40. 0 43. 0 62. 5 67. 0 76. 7 73. 9 65. 7 49. 8 34. 9 33. 3	25. 9 27. 1 51. 0 54. 4 76. 5 83. 3 92. 1 89. 2 78. 9 62. 0 44. 0 40. 6 60. 4	25. 1 26. 6 48. 8 53. 6 72. 8 81. 9 90. 3 75. 0 58. 5 41. 5 38. 4 58. 3	31. 0 33. 0 56. 8 60. 1 80. 3 87. 9 97. 5 94. 0 82. 4 66. 5 49. 1 44. 5	32. 0 28. 7	23. 6 46. 5 50. 2 68. 8 74. 4 85. 4 82. 2 72. 5 57. 0 40. 6	110			18 34 34 56 52 61 63 60 46 29 32 42	18 19 34 37 54 52 60 62 60 48 31 32 42	86 81 75 71 67 59 64 70 80 85 81 82	72 68 54 50 50 35 38 43 56 59 57 72	74 73 59 56 53 38 39 45 61 69 65 76	0. 111 . 105 . 194 . 211 . 392 . 394 . 594 . 590 . 514 . 321 . 175 . 169	0. 116 . 121 . 209 . 219 . 465 . 401 . 553 . 581 . 544 . 338 . 175 . 193 . 326	. 121 . 207 . 243 . 429 . 408 . 537 . 569 . 526 . 352 . 184 . 185	3.87 2.81 3.86 1.59 1.05 4.51 2.26 5.00 5.91 3.96	0. 28 1. 55 . 99 1. 31 . 66 . 42 3. 37 1. 20 1. 70 1. 50 3. 90 1. 65 3. 90	4. 9 1. 0 . 0 . 0 . 0 . 0 . 0 . 0 T	7. 1 6. 9 5. 5 5. 4 4. 3 3. 2 4. 8 3. 2 5. 6 5. 4 4. 3 5. 5	6. 4 4. 6 4. 0 3. 9 3. 8 5. 6 5. 9 5. 2 6. 0	5. 7	4. 0 3. 7 4. 4 2. 8 5. 2 5. 4 4. 7 5. 9
	-								[φ=		LEDO V N.;				V.]												
January February March April June June July August September October November December	29. 38 29. 20 29. 35 29. 39 29. 27 29. 29 29. 34 29. 39 29. 40 29. 41 29. 50	29. 77 29. 68 29. 77 29. 87 29. 72 29. 70 29. 77 29. 84 30. 00 29. 91	28. 38 28. 66 28. 75 28. 88 28. 69 29. 07 29. 02 28. 79 28. 83 28. 89	61. 9 46. 7 33. 5 30. 8	23. 1 18. 9 43. 0 46. 2 69. 3 73. 5 82. 5 79. 9 73. 3 57. 2 38. 9 36. 6 53. 5	81. 3 78. 0 70. 1 54. 8 37. 8 35. 4	27. 3 25. 8 47. 9 51. 5 74. 1 78. 4 86. 6 84. 5 76. 9 61. 3 43. 6 40. 5 58. 2	9. 7 30. 7 36. 3 53. 2 57. 8 65. 4 65. 4 58. 7 44. 4 29. 9 26. 8	20. 9 17. 8 39. 3 43. 9 63. 6 68. 1 76. 0 67. 8 52. 8 36. 8 33. 6 49. 6	48 51 68 76 90 93 105 101 92 78 65 60 105	-12 -9 12 23 37 48 52 54 39 26 13 10 -12	14 9 28 32 48 51 58 60 56 42 27 26 38	12 30 31 46 52 55 60 58 44 29 28	58 60 58 44 29 28	68 66 65 74 81 82 76 79	74 60 57 47 49 41 53 60 62 67 71	76 67 65 51 53 46 56 67 68 69 73	. 194 . 345 . 389 . 493 . 535 . 466 . 280 . 160 . 145		0. 109 . 094 . 174 . 221 . 350 . 416 . 490 . 531 . 494 . 315 . 169 . 160	2. 31 3. 26 1. 62 6. 70 2. 17 1. 28 2. 82	0. 29 1. 18 . 47 . 48 . 98 . 87 2. 22 . 64 3. 17 . 60 1. 43 3. 17	2. 1 . 0 . 0 . 0 . 0 T 1. 1 5. 0	7. 6 6. 5 6. 5 7. 0 4. 0 4. 9 2. 9 4. 8 4. 2 5. 6 6. 3 6. 7	7. 6 5. 0 4. 8 3. 4 4. 4 4. 9 5. 5 6. 6 6. 3	4. 1 4. 7 6. 1 6. 3	8. 0 6. 2 5. 7 6. 9 4. 1 4. 5 3. 3 3. 8 4. 8 5. 5 6. 3 5. 5
											EKA ' N.;				7.]												
January February March April May June July August September October November December				16. 6 11. 7 38. 2 44. 7 62. 5 70. 1 79. 0 76. 3 65. 8 49. 0 34. 3 33. 4 48. 5			56. 0 46. 9	9. 7 35. 1 41. 2 58. 9 64. 4 74. 2 73. 7 62. 7 45. 9 30. 2 28. 8	21, 2 19, 4 49, 0 54, 4 69, 8 78, 4 88, 4 87, 2 73, 2 56, 0 43, 1 37, 8 56, 5	56 76 81 91 92 109 114 113 105 85 78 66	-6 -9 19 16 46 50 60 60 49 28 16 8										1. 73 . 42 . 25 3. 02 4. 79 . 92 1. 11 . 57 7. 32 . 86 . 09 1. 55	. 20 1. 29 1. 26 . 84 1. 11 . 43 2. 21 . 59 . 09	4.6 T 1.5 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0				5. 5 4. 8 3. 6 3. 8 4. 5 2. 3 2. 2 3. 1 5. 3 4. 2 2. 1 5. 9 3. 9

TATOOSH ISLAND, WASH.

	1						[]	H=1	01 ft.	; H <sub>b</sub>	=86	ft.;	t=1	0 ft.;	h <sub>r</sub> =	3 ft.;	ha=	54 ft	.]										
							Wind	1												1	Num	ber	of da	ys					
		Ву	self-r	egister		Nt	ımbe	r of	wind	s, 8 a	ı. m.	and	8 p.	m.				Pre itat	cip- ion	Sı	iow		F	og	mı	axi- im np.	re 32°		ec-
Month	Average hourly ve-	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	T or more	6.01 inch or more melted	Hail	Light	Dense	32 <sup>™</sup> or below	90° or above	Minimum temperature or below	Thunderstorm	Aurora
January February March April May June July August September October November December	15. 9 11. 4 12. 5 10. 1 8. 2 9. 4 9. 7 11. 7 16. 3	E. S. S. S. S. E. E.	Mi. 52 58 45 40 40 45 33 34 34 42 47 59	E. W. E. S. S. E. E. E. S.	16 18 16 3 9 2 1 1 1 3 3 9 17	0 4 2 3 1 0 0 0 1 0	1 0 4 4 4 3 2 1 9 8 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	31 36 13 10 8 10 6 11 10 24 44 19	1 3 0 0 4 3 3 0 1 1 2 3	9 8 14 21 18 15 16 22 19 15 6 15	6 3 8 12 7 12 22 19 15 6 4 10	10 5 13 10 12 11 11 8 5 0 8	4 3 6 1 6 5 2 1 1 2 0 3	0 0 0 0 0 0 0 0 0 0 0 0 0	4 1 3 3 0 4 14 3 6 9 9 3 59	4 8 9 6 5 10 8 12 5 6 6 7	23 20 19 21 26 16 9 16 19 16 15 21	24 15 22 15 16 16 11 4 6 7 9 28	19 12 14 14 9 3 6 5 8 26	0 8 4 1 0 0 0 0 0 0 0 0 1	0 4 3 0 0 0 0 0 0 0 0 0 0 0 0 0 7	0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0	2 2 4 4 1 1 6 13 10 9 3 0	0 3 4 5 3 1 4 15 15 15 6 0	0 2 0 0 0 0 0 0 0 0 0 0	000000000000000000000000000000000000000	0 11 2 0 0 0 0 0 0 0 0 0 0	1 0 0 0 0 0 1 0 0 0 0 0 1 0 0 0 0 1 0 0 0 1 0 0 1	0 0 0 0 0 0 0 0 0 0 0 0 0
							[H=	503 f	t.; H					E, I			n <sub>a</sub> =1	io ft	ī										-
January February March April May June July August September October November December	11.0	W. NE. SW. SE. SW. NE. SW. SW. SW. S. SW.	35 30 37 31 30 28 30 58 26 29 27 37	W. W. NW.	1 0 1 0 0 0 0 0 2 0 0 0 0 1 1 5	5 4 8 6 8 10 10 3 4 8 8 5	5 12 4 12 8 14 8 8 12 8 5 5 5	5 3 6 5 7 7 4 9 1 4 5 6	9 10 11 11 11 7 4 8 5 12 1 8	5 4 7 5 10 3 7 16 15 18 12 21	9 8 8 7 13 10 17 14 11 8 12 7	12 9 8 4 1 5 3 0 1 7 4	1	0 0 0 0 0 0 0 0 0 0	8 10 10 10 17 15 12 19 12 12 14 9	8 4 12 7 6 12 15 11 9 7 5 8	15 15 9 13 8 3 4 1 9 12 11 14	15 10 11 11 11 8 6 6 8 11 13 4 10	10 7 7 8 7 5 4 5 10 10 2 9	11 13 3 4 0 0 0 0 0 0 0 0 3 3 3	6 5 2 0 0 0 0 0 1 2	0 0 0 1 0 1 2 0 0 0 0 0 0 0 4	5 4 1 2 0 0 0 1 3 7 1 4	0 2 0 1 0 0 0 0 0 0 1 0 3	12 13 0 0 0 0 0 0 0 0 0 2 3 3	0 0 0 0 1 15 23 23 12 0 0 0 74	26 24 9 8 0 0 0 0 0 3 20 20	0 2 4 3 9 7 8 7 3 4 1 1	0 0 0 0 0 0 0 0 0 0 0
							[H=	589 f	t.; H					HIC t.; h,		ft.; }	na=8	7 ft. <b>j</b>											
February	10. 7 10. 3 9. 1 8. 7 7. 6 8. 2 8. 5 9. 2 10. 9	W. W. W. W. N. N. W. E. SW. W. SW. W.	30 40 31 33 30 35 26 29 28 28 30 27	W. W. SW. NW. NW. W. W. W. W.	0 3 0 2 0 1 0 0 0 0 0 0	4 5 8 5 9 14 12 7 13 7 9 5	5 6 5 3 0 8 9 4 4 4 2 3	8 10 12 11 9 8 11 15 13 5 4 9	1 4 5 6 5 7 9 7 4 5 1 5	4 2 5 6 4 3 4 4 6 13 6 9	7 5 5 4 6 6 3 8 10 10 15 14	30 22 15 14 21 8 7 12 7 9 15 10	3 4 7 11 8 6 7 5 3 9 8 7	0 0 0 0 0 0 0 0 0 0 0	4 6 7 5 13 11 17 16 11 10 7 11	3 11 16 9 12 14 11 10 11 10 6 4	24 12 8 16 6 5 3 5 8 11 17 16	5 8 5 7 11 10 8 11	6 9 11 4 5 4 5 8 8 5 11	20 17 8 9 0 0 0 0 0 0 1 9 7	11 9 5 6 0 0 0 0 0 0 0 3 6 40	0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8 8 12 8 1 0 0 0 7 7 4 8 8	0 1 1 1 1 0 0 0 3 2 2 2 3 14	17 18 2 1 0 0 0 0 0 0 0 4 6	0 0 0 0 1 2 10 11 3 0 0 0	0 0 0 3 18 25	1 1 4 3 5 10 7 5 3 2 1	0 0 0 0 0 0 0 0 0 0 0
							[H=	926 ft	; H					ANS.		t.; h	s=87	ft.]											
February March April April May June July August September October November December	9. 8 11. 2 10. 6 8. 7 9. 4 8. 9 8. 8 9. 5 9. 7 9. 5 9. 5	NW. NW. W. N. SS. SS. SS. SS. SS.	32 29 31 25 40 25 23 27 30 28 40	NW. NW. S. SW. NW. SW. NW. SW. SW. N.	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 4 2 2 2 2 5 3 1 3 12 10 7	2 6 2 4 3 2 2 4 3 2 1 7 38	4 3 4 3 3 6 4 3 5 1 3 3 4 4 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	2 3 2 3 4 4 2 4 6 5 2 7	5 2 8 6 6 5 13 9 19 11 19	2 1 2 4 6 6 6 11 1 9 9	2 5 7 3 4 1 3 4 0 9 7 4	11 5 4 5 3 1 1 1 1 2 5 15 6	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	11 10 17 17 13 22 22 20 11 16 20	7 13 11 8 12 6 9 6 10 8 7 11	13 6 3 5 6 2 0 5 9 7 3 10 69	6 8 2 8 12 4 1 5 15 5 1	1 1 2 5 9 2 1 3 14 3 1 4 4	13 12 2 3 0 0 0 0 0 0 0 0 0 2 5 5	6 7 0 1 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1	0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 1 2 1 0 0 0 0 9 4 5 15 38	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	17 19 0 1 0 0 0 0 0 0 0 0 0 2 39	0 0 0 2 3 17 30 27 12 0 0 0 0 91	0 1 4 19	0 0 0 7 6 4 1 5 0 3 1 1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

<sup>\*</sup>Wind direction frequency at Topeka, Kans.; for 8 a. m. only, January through September; October-December, 8 a. m. and 8 p. m.

## UNITED STATES METEOROLOGICAL YEARBOOK

Table 16.—Annual meteorological summaries for the year ended Dec. 31, 1936—Continued Trenton, N. J.

 $\phi = 40^{\circ}13' \text{ N.; } \lambda = 74^{\circ}46' \text{ W.]}$ 

	10	ressu								-40 1	3′ N.;	, A=	74-5		/V . J												
		10350					empe		<del></del>											Moist	ure			1			
		Extr	emes			M	ean			Ext	remes		Dev poin			elati mid		Vap	or pre	ssure	Pre	cipita	tion		Clou	dine	SS
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
January February March April May June July August September October November December Year	29. 90 29. 69 29. 83 29. 84 29. 72 29. 68 29. 81 29. 89 29. 90 29. 86 30. 05	30, 33 30, 18 30, 34 30, 43 30, 06 30, 11 30, 15 30, 24 30, 34 30, 41 30, 53	29. 23 29. 39 29. 33 29. 38 29. 53 29. 45 29. 01 29. 21 29. 26	24. 3 21. 5 42. 4 44. 8 59. 5 67. 1 72. 4 70. 6 64. 2 52. 3 38. 5 34. 7 49. 4		29. 2 27. 5 46. 6 50. 0 65. 3 71. 0 76. 8 75. 5 67. 9 56. 3 42. 0 39. 5	55. 7 57. 9 75. 6 79. 4 86. 6 84. 1 77. 3 65. 2 49. 4 45. 6	17. 7 37. 0 39. 3 52. 3 60. 4 66. 0 64. 6 58. 9 47. 5 33. 1	27. 8 24. 8 46. 4 48. 6 64. 0 69. 9 76. 3 74. 4 67. 6 56. 4 41. 2 37. 9 52. 9	53 51 75 84 93 94 106 95 90 79 75 61	-3 2 19 30 41 53 60 57 44 27 16 11	16 37 35 47 57 61 64 58 46 30 29	62 58 46 29 30	22 18 37 37 49 57 62 63 59 47 29 31	79 78 80 68 66 72 69 79 80 81 70 78	% 66 66 62 52 48 55 47 55 62 56 51 65 57	72 68 72 62 57 64 62 67 74 71 60 72 67	In. 0. 115 . 097 . 233 . 214 . 348 . 483 . 546 . 601 . 490 . 347 . 182 . 170 . 319	In. 0. 121 . 106 . 243 . 215 . 365 . 463 . 506 . 577 . 504 . 342 . 184 . 181 . 317	. 239 . 230 . 367 . 477 . 563 . 590 . 512 . 347 . 183 . 189	2. 20 3. 78 2. 11 3. 59 2. 39 1. 75 4. 11 4. 30 2. 76 . 75	. 78 1. 13 . 96 1. 80 . 51 . 79 . 99 2. 38 1. 92 . 30 1. 38	9.1 T .0 .0 .0 .0 .0	4. 7 6. 6	6. 2 6. 9 6. 6 4. 2 6. 3 5. 2 5. 8 6. 5 5. 0 5. 5	4. 7 5. 9 3. 5 5. 3 5. 4 5. 6 4. 2 3. 8 4. 7 5. 5	5. 7 5. 9 6. 9 6. 3 3. 8 5. 9 5. 1 5. 9 5. 2 4. 9 5. 6
											NTIN 'N.;																
January February March April May June July September October November December Year	27. 27 27. 17 27. 33 27. 29 27. 25 27. 25 27. 28 27. 29 27. 35 27. 45 27. 28	27. 59 27. 56 27. 74 27. 65 27. 61 27. 64 27. 55 27. 74 27. 84 27. 76 27. 65	26. 66 26. 70 26. 68 27. 00 26. 97 26. 91 26. 86 27. 01 26. 87	-4.4	8. 1 42. 8 49. 1 69. 8 78. 4 93. 1 86. 3 73. 4 56. 7 39. 7 32. 6	16. 4 5. 6 40. 3 49. 4 69. 9 79. 5 94. 8 86. 9 72. 3 53. 4 34. 4 28. 7	48. 1 54. 5 74. 9 84. 4 98. 2 91. 9	1. 3 -9. 2 24. 4 30. 1 50. 6 58. 0 69. 9 63. 7 51. 4 33. 6 21. 5 16. 8 34. 3	13. 2 1. 8 36. 2 42. 3 62. 8 71. 2 84. 0 77. 8 65. 2 47. 7 32. 9 27. 3 46. 9	51 52 73 83 94 104 108 107 94 83 64 63	-21 -32 4 -8 35 38 56 46 32 9 -4 -11	21 27 46 50 51 53 44 29 21 18	10 2 22 28 44 49 50 51 43 30 25 21	12 2 23 29 44 48 47 49 43 29 25 20 31	85 91 72 76 74 66 49 67 69 72 81 80 74	73 77 45 51 44 38 26 33 37 39 58 65 49	85 54 52 43 38 22 31 38 42 70 71	. 041 . 112 . 160 . 319 . 372 . 383 . 413 . 305 . 161	0. 073 . 061 . 118 . 159 . 307 . 348 . 369 . 384 . 303 . 167 . 138 . 116	. 125	0. 98 . 97 . 95 1. 63 1. 87 1. 91 . 04 1. 65 1. 06 . 35 . 83 . 26	. 30 . 39 . 76 . 67 . 53 . 02 . 60 . 43 . 23 . 35 . 18	10. 7 3. 6 . 0 . 0 . 0 . 0 . 0 . 9 10. 4	4. 9 6. 2 5. 4 5. 5 6. 4 8 2. 3 4. 4 3. 3 4. 2 5. 5 5. 9	6. 9 7. 6 6. 6 5. 0 5. 0 3. 1 1. 7 2. 7 2. 9 5. 2 5. 1 7. 0 4. 9	6. 1 6. 6 6. 7 6. 2 5. 4 4. 2 2. 0 4. 3 2. 3 4. 9 3. 3 4. 9	6.7 6.9 6.1 5.4 3.8 2.2 3.6 2.7 4.7 6.7
											BUR 'N.;				7.]												
September October November December	29. 73 29. 74 29. 74 29. 82 29. 95	29, 89 29, 96 29, 91 29, 88 30, 09 30, 25 30, 22	29. 41 29. 55 29. 49 29. 53 29. 60 29. 67 29. 49	39. 3 39. 1 55. 3 56. 1 67. 5 74. 0 75. 8 75. 9 72. 6 58. 2 46. 3 46. 3	87.4	47. 5 48. 8 66. 7 67. 4 75. 7 82. 6 85. 6 81. 7 68. 6 56. 0 53. 3 68. 4	53. 8 55. 1 73. 0 74. 1 83. 1 91. 7 89. 4 93. 2 90. 1 76. 6 64. 2 59. 4 75. 3	36. 9 36. 4 52. 9 53. 3 65. 1 71. 4 72. 5 73. 6 71. 3 56. 3 43. 9 43. 4	45. 4 45. 8 63. 0 63. 7 74. 1 81. 6 81. 0 83. 4 80. 7 66. 4 54. 0 51. 4	76 79 86 89 88 100 95 99 95 87 84 72	19 14 42 38 58 61 65 64 59 44 30 28	34 33 46 48 61 66 72 70 68 54 39 41	34 34 44 45 59 64 72 69 67 55 39 41	47 61 66 72 70 68 55 39 41	80 71 76 81 77 87 84 87 86 77 82	52 47 66 53 53 57 50 64	61 50 51 62 52 72 60 65 64 55 66	. 366 . 549 . 652 . 773 . 749 . 700 . 433 . 267 . 280	. 223 . 312 . 338 . 510 . 605 . 782 . 712 . 672 . 450 . 263 . 284	0. 220 . 223 . 328 . 352 . 540 . 652 . 798 . 727 . 694 . 451 . 260 . 279	3. 60 4. 93 2. 60 7. 58 2. 70 . 87 . 72 . 04 . 160 5. 23 4. 15	. 64 4. 85 1. 47 . 55 1. 72 . 35 . 03 1. 39 3. 65 1. 03		2. 1 6. 5 4. 0 5. 3 4. 7 6. 1	5. 1 7. 6 5. 4 5. 2 6. 6 2. 2 6. 1 3. 5 5. 8 4. 5 4. 9 7. 1 5. 3	5. 9 6. 6 4. 3 5. 4 6. 1 1. 7 6. 0 5. 5 4. 7 3. 5 3. 0 6. 1	6. 0 7. 5 5. 6 5. 2 6. 2 1. 9 6. 1 3. 9 5. 8 4. 8 4. 9 7. 1
									WAL $[\phi=4]$		WAI 'N.; )																
February March April May June July August Cottober November December	28. 96 2 28. 96 2 28. 87 2 28. 85 2 28. 85 2 28. 88 2 28. 94 2 29. 03 2 29. 30 2	29, 52 29, 37 29, 44 29, 27 29, 15 29, 04 29, 10 29, 35 29, 35 29, 61 29, 48	28. 27 28. 44 28. 57 28. 33 28. 51 28. 56 28. 65 28. 61 28. 61 28. 86 28. 36	65. 1 64. 6 55. 7 50. 3 31. 6 39. 7	61. 1 71. 1 74. 3 81. 5 80. 6 70. 2 64. 2 40. 6 43. 4	88. 5 87. 0 75. 4 66. 6 41. 0 42. 3	81. 1 90. 0 88. 4 77. 3 69. 9 44. 5 46. 8	64. 1 62. 9 52. 5 46. 6 27. 8 34. 2	37. 5 21. 5 45. 2 57. 8 65. 8 69. 8 77. 0 75. 6 64. 9 58. 2 36. 2 40. 5	55 60 70 89 99 103 104 103 90 83 66 64 104		- 1	29 38 41 47 44 45 41 36 26 32	17 30 35 39 46 42 40 40 37 26 33	78 66 64 61 65 49 48 57 58 73 73	68 47 45 35 41 28 29 37 36 57 67	73 46 35 28 37 21 20 30 34 58 71	. 167 . 232 . 268 . 328 . 300 . 290 . 258 . 215 . 127 . 172	. 097 . 162 . 233 . 258 . 325 . 290 . 297 . 267 . 220 . 139 . 181	. 105 . 173 . 213 . 242 . 316 . 273 . 252 . 256 . 226 . 145	3. 21 2. 26 . 50 . 74 . 49 . 88 . 04 . 01 . 93 . 03 . 01 1. 12	1. 03 . 89 . 26 . 39 . 32 . 42 . 01 . 58 . 03 . 01 . 64 1. 03	3.6	6. 4 5. 7 5. 5 5. 2 2. 3 2. 4 2. 3 2. 8 6. 7	2. 0 4. 4 9. 0	6. 0 5. 7 5. 1 5. 7 2. 0 1. 4 2. 8 2. 7 4. 8 8. 6	9. 0 8. 6 6. 4 5. 8 4. 7 5. 4 2. 1 2. 2 2. 7 2. 0 4. 8 9. 1

	1						[E	I = 56	ft.; ]	H <sub>b</sub> =:	190 fi	.; h <sub>t</sub>	=88	ft.; l	1r=83	3 ft.;	ha=	106 ft	t.]										
						7	Wind	i												1	Jum	ber	of da	ys					
		Bys	elf-re	gister		Nu	ımbe	rof	winds	s, 8 a	. m.	and	8 p.	m.				Pre	cip- ion	Sr	10W		F	og	Ma mu ten		ure 32°		lec- city
Month	Average hourly ve-	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southerst	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	T or more	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperature or below	Thunderstorm	Aurora
January February March March April May June July August September October November December	9. 3 8. 4 8. 4 9. 1 8. 8 10. 8	N.	Mi. 35 26 33 38 35 27 29 33 30 32 29 38	NE. NW. SE. S. NW. NW. NW. NW. NW. NW. S.	1 0 2 4 1 1 0 0 1 0 1	11 8 8 11 9 5 9 14 7 21	5 10 9 5 1 10 4 11 8 4 4 7	2 1 4 2 1 4 2 3 6 2 2 3 3	4 1 7 4 2 8 4 6 10 4 0 0	6 4 12 19 23 14 18 18 18 14 6	5 4 8 4 11 7 9 6 0 6 11 12	20 15 4 9 2 2 7 8 6 9 6 6	15 7	000000000000000000000000000000000000000	8 9 5 7 16 9 11 8 10 12 13 13	13 7 9 9 10 9 11 12 9 7 8 6	10 13 17 14 5 12 9 11 11 12 9 12	14 9 14 14 7 11 9 11 9 8 6 13	7 10 10 6 9 4 9 4 5	0	7 5 2 0 0 0 0 0 0 0 0 0 2 1	0 0 0 0 0 1 0 0 0 0 0 1 0 0 0 0 0 0 0 0	13 8 14 8 3 9 6 9 11 15 12 12	0 1 0 0 0 0 0 0 1 0 2 1 1	11 15 0 0 0 0 0 0 0 0 0 2 2 2	0 0 0 0 2 3 8 8 1 0 0 0	25 7 2 0 0 0 0 0 4 15	2 1 5 8 9 9 1 0	0 0 0 0 0 0 0 0 0 0 0
							ſΗ	=2.5	81 ft.:			NTII			BR.	=361	ft. h	.=54	l ft 1								·		
January February March March April May June July August September October November December	9. 5 9. 9 10. 3	W. NW. N. S. S. S. W. W. W.	24 30 27 26 30 29 30 32 26 28 34 23	NW SW. N. SW. NW SW. N. NE. N.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9 12 18 14 4 6 9 17 12 7 5	77 44 62 54 53 74 1	9 4 6 3 4 9	1 4 1	5 3 2 5 11 15 22 8 8 5 2 3		19 19	12	0 2 1 0 1 1 2 2 2 0 0 0 2	7 4 6 8 9 18 25 16 21 14 11 5	12 10 15 14 14 14 9 5 11 5 8 9 10	12 15 10 8 8 3 1 4 4 9 10 16	12 12 8 11 8 8 2 9 6 4 7 6	8	18 16 11 7 0 0 0 0 0 4 8 9	12 12 7 3 0 0 0 0 0 0 2 6 6 6	0 0 0 1 0 1 0 0 0 0 0 0 0 0	5 0 1 1 2 0 0 2 1 1 1 3	2 0 0 0 0 0 0 0 0 1 0 0 1	20 22 4 2 0 0 0 0 1 4 12 65	0 0 0 0 1 8 27 18 4 0 0 0	31 29 29 11 0 0 0 0 10 25 31	0 0 0 4 4 9 5 11 6 0 1 0	0 1 1 0 0 0 0 0 0 0 1 2 0
							[E	I=22	6 ft.;			SBU			ISS. h <sub>r</sub> =5	8 <b>f</b> t.;	h <sub>a</sub> =	73 ft.	.]										
January February March April May June July August September October November December	7. 9 8. 4 8. 6 8. 4 6. 5 6. 7 6. 5 5. 7 6. 6 6. 5 6. 8 7. 2	S. SE. N. N.	26 29 26 26 21 18 27 23 15 19 21 25	NW. NW. NW. SE. NE. SE. W. NW. S.	000000000000000000000000000000000000000	14 19 6 9 9 11 6 2 6 19 26 19	7 8 1 7 6 6 5 4 1 4 4 6 5 9	8 5 7 8 17 4 1 12 11 10 6 3	9 8 9 7 13 5 3 10 14 12 5 18	7 12 23 14 5 9 23 18 12 2 7 6	4 2 6 8 4 13 12 9 6 2 4 3	6 0 5 3 7 6 4 7 6 2 4	7 4 5 4 5 4 3 2 2 6 6 3 5 1	0 0 0 0 0 1 3 1 1 1 0 0	9 4 11 13 5 25 7 16 7 13 13 7	9 7 6 5 13 2 10 9 12 7 6 4	13 18 14 12 13 3 14 6 11 11 20 146	13 8 9 6 9 3 10 7 2 6 8 11	8 7 7 5 7 2 9 3 0 4 8 8	3 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8 4 2 0 0 0 0 0 0 0 0 5 9 9	5 0 2 0 0 0 0 0 0 0 0 3 1 6	1 1 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 21 17 26 21 0 0	13 12 0 0 0 0 0 0 0 0 0 1 3	4 1 5 4 6 3 13 6 5 2 0 2	0 0 0 0 0 0 0 0 0 0 0 0
							[H=	=952							ASE		h <sub>a</sub> =6	5 ft.	ı										
January February March April May June July August September October November December	5. 4 7. 4 6. 2 6. 8 5. 6 5. 9 5. 8 4. 8 3. 8	S. S. S. S. S. S. S. S. S. S. S. S. S. S	32 22 25 21 18 15 19 17 15	W. SW. W. W. W. W. W. S. S. SW.	0 0 1 0 0 0 0 0	0 3 3 0 7 2 0 2 1 2 1 2	2 0 1 3 4 2 0 2 1 1 0 2 2	5 2 5 2 2 6 0 1 3 0 3 2	9 5 4 9 6 6 9 4 8 8 7 3	24 24 21 28 19 24 21 22 19 20 19 29	13 13 15 6 11 11 10 10 16 11 16 11	4 6 9 11 12 7 20 18 11 18 10 6	4 4 4 1 1 2 2 2 0 1 4 2	1 0 0 0 0 0 0 1 1 1 1 0	1 2 7 8 9 10 23 22 20 23 13 1	5 5 10 13 16 9 6 7 5 4 8 3	25 22 14 9 6 11 2 2 5 4 9 27	15 13 5 5 8 11 3 1 4 1 1	11 8 4 3 2 6 0 0 0 3 0 0 7	5 15 6 1 0 0 0 0 0 0 7	3 10 2 1 0 0 0 0 0 0 0	0 0 1 0 0 0 0 0 0 0 0 0	11 0 0 1 0 1 0 0 0 0 0 0 0 1 1 8	6 0 0 0 0 0 0 0 0 0 0 0 2 4	5 19 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 3 6 15 12 1 0 0	14 25 6 3 0 0 0 0 0 0 0 24 13	0 0 0 0 0 2 6 2 0 0 0 0 0	0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0

Year....

5.7 S.

Table 16.—Annual meteorological summaries for the year ended Dec. 31, 1935—Continued

WASHINGTON, D. C.  $[\phi=38^{\circ}54' \text{ N.}; \lambda=77^{\circ}03' \text{ W.}]$ 

									[	→ = 38	°54′ I	N.; 2	λ=7	7°03	′ W.	.]											
	F	ressu	re			7	rempe	eratur	е											Moist	ture						
		Extr	emes			М	ean			Ext	reme		Dev poir			elati midi		Vap	or pre	ssure	Pre	cipit	tion		Clou	dine	ss
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8a.m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
January February March April May June July August September October November December	29. 94 29. 80 29. 78 29. 89 29. 96 29. 98 29. 97 30. 14	30, 50 30, 09 30, 18 30, 23 30, 28 30, 37 30, 54 30, 60	29. 54 29. 45 29. 54 29. 63 29. 57 29. 18 29. 36 29. 43	62. 2 69. 0 72. 9 73. 3 66. 5 54. 6 40. 9 35. 2	31. 4 53. 2 56. 5 72. 6 78. 2 83. 4 82. 7 75. 9 65. 3 49. 5	60. 1 46. 1 41. 3	88. 0 87. 1 80. 2 68. 7 53. 2 47. 2	21. 6 40. 8 42. 6 56. 2 63. 1 68. 7 62. 7 50. 7 36. 7 32. 5	50. 3 52. 2 67. 4 72. 8 78. 4 77. 9 71. 4 59. 7 45. 0	58 64 76 86 92 96 105 98 93 83 79 65	0 3 26 30 43 54 62 59 47 27 19 14	18 36 34 50 58 64 65 59 49 31 29	19 36 34 48 57 62 64 59 48 31 30	° 21 19 37 35 51 58 66 66 61 49 30 31	% 73 75 75 61 65 70 74 77 78 81 68 78	54 45 43 51 50 56 58 55 48 62	56 60 50 53 61 61 66 69 68 54 68	In. 0. 122 . 108 . 228 . 212 . 374 . 499 . 603 . 636 . 520 . 374 . 195 . 170	In. 0. 121 . 111 . 226 . 213 . 356 . 486 . 568 . 619 . 508 . 370 . 194 . 177 . 329	In. 0, 125 , 113 , 242 , 218 , 399 , 508 , 623 , 660 , 553 , 378 , 194 , 184	3. 83 4. 47 1. 98 5. 32 2. 29 4. 07 3. 61 1. 98 1. 70	1. 48 . 66 2. 44 . 80 2. 46 2. 71 1. 49 1. 00 . 39 1. 48	T .0 .0 .0 .0 .0 .0 .0 T	6. 5 5. 5 4. 4 5. 5 5. 4 4. 4 5. 1 5. 2 5. 4	6.8 6.5 4.4 5.6 5.2 5.1 5.1 5.7 6.2	5. 6 5. 5 3. 2 5. 4 5. 7 5. 5 3. 9 4. 2	6. 3 3. 7 5. 7 5. 5 5. 4 5. 1 5. 3 6. 1
											HIT.				7.1						·					!	
January February March April May June July August. September October November December	28. 44   28. 56   28. 56   28. 48   28. 51   28. 50   28. 52   28. 62   28. 63   28.	28. 84 28. 93 28. 85 28. 78 28. 89 28. 76 28. 86 29. 10 29. 10 28. 91	27. 86 28. 08 28. 13 27. 91 28. 30 28. 31 28. 10 28. 24 28. 10 28. 00	23. 5 17. 9 40. 9 46. 5 62. 5 70. 2 77. 2 77. 6 67. 3 49. 6 36. 2 34. 9 50. 4	30. 5 29. 1 56. 9 63. 5 74. 8 85. 9 95. 8 96. 1 78. 9 60. 4 50. 1 43. 7	97. 5 77. 7 60. 2 48. 9 43. 4	36. 5 36. 0 64. 3 69. 1 78. 7 91. 2 99. 7 101. 1 83. 0 65. 1 56. 9 47. 8 69. 1	19. 5 14. 0 37. 7 43. 9 60. 6 66. 9 75. 8 76. 8 65. 4 47. 1 32. 8 31. 9	28. 0 25. 0 51. 0 56. 5 69. 6 79. 0 87. 8 89. 0 74. 2 56. 1 44. 8 39. 8 58. 4	59 76 78 93 90 105 112 114 101 82 76 65 114	2 -8 21 15 50 53 65 61 47 27 19 15	18 11 26 31 55 55 59 55 59 42 26 31 39	18 11 24 30 56 54 53 52 58 44 26 34 38	21 14 23 32 55 53 51 49 57 45 26 34 38	77 74 57 57 77 61 55 48 76 77 67 83	50 30 32 53 36 26 25 55 56 40 69	52 26 33 55 34 22 22 55 58 42 71	. 149 . 194 . 439 . 450 . 510 . 451 . 512 . 287 . 157 . 177	. 078 . 136 . 197 . 452 . 435 . 417 . 401 . 507 . 307 . 143 . 203	. 086 . 128 . 212 . 442 . 419 . 379 . 364 . 482 . 319 . 148 . 207	. 02 T . 58 3. 30 1. 04 . 21 . 04 4. 84	. 02 T	.1 .0 T .0 .0 .0 .0 .0 .0 T 2.1	2. 4 1. 6 1. 8 5. 9 4. 2 1. 9 5. 3	4. 1 6. 6 2. 6 2. 9 2. 4 7. 0 4. 4 2. 8 5. 2	4. 5	4. 1 6. 2 2. 5 2. 4 2. 3 6. 6 4. 4 2. 2 5. 4
									WIL $\phi = 48$		ΓΟΝ, Ν.; λ:				.]												
January February Amarch April 2 April 2 June July 2 August September 2 October December 2 Year 2	27. 88 2 28. 06 2 27. 94 2 27. 92 2 27. 91 2 28. 00 2 27. 96 2 28. 04 2 28. 14 2 27. 98 2	8. 40 2 8. 29 2 8. 49 2 8. 32 2 8. 32 2 8. 33 2 8. 33 2 8. 43 2 8. 57 2 8. 65 2 8. 35 2	7. 57 -7. 47 -7. 56 -7. 43 -7. 59 -7. 58 -7. 67 -7. 49 -7. 45 -7. 73 -7. 52	18. 1 21. 7 28. 3 52. 0 57. 5 69. 1 59. 1 48. 7 35. 1 25. 2	-9.3 29.8 42.8 70.3 73.8 88.6 77.1 68.7 50.7 35.9 20.0	30. 1 45. 2 71. 9 76. 6 91. 3 78. 5 68. 4 48. 9 33. 2 17. 4	-5. 1 34. 0 48. 9 75. 3 79. 5 95. 0 82. 3 73. 9 56. 3 40. 6 24. 6	-22. 2 17. 8 25. 5 48. 9 53. 9 66. 5 57. 5 45. 9 32. 4 21. 0 5. 4	69. 9 59. 9 44. 4 30. 8 15. 0	110 103 93 81 67 49	- £0 -8 -2 32 36 51 48 27	18 22 40 45 55 48 41 26 20 8	-17 - 22 24 38 44 52 48 40 28 24 12	15 22 26 38 43 50 46 38 28	84 84 78 66 66 62 70 75 69 82 79	66 772 7750 4485 338 331 2240 3388 366 562 669 7	74	105 131 252 316 438 340 267 144 117 071	. 020 . 122 . 140 . 239 . 304 . 400 . 344 . 262 . 159 . 136	. 024 . 125 . 149 . 235 . 293 . 369 . 312 . 240 . 161 . 133 . 078	0. 71 .61 1. 51 .62 1. 47 .87 1. 01 .46 .29 .38 .45	0. 31 . 19 . 54 . 08 . 37 1. 00 . 32 . 37 . 18 . 19 . 26 . 19	. 0 . 0 . 0 . 0 . T 2. 1 4. 7 6. 0	4. 1 2. 4 4. 4 2. 2 3. 8 2. 5 4. 0 3. 6 4. 3	3. 9 4. 8 2. 4 3. 4 1. 3 3. 9 2. 4 3. 3	4. 1 4. 6 3. 7 2. 9 3. 7 2. 0 3. 6 2. 4 4. 8 3. 4 4. 8	5. 5 4. 3 5. 2 4. 5 2. 7 3. 8 2. 9 4. 1 4. 1 5. 3
									W11 [φ=3		NGΤ Ν.; λ		,														
January	0. 03   36 9. 86   36 0. 02   36 0. 00   36 9. 88   36 9. 98   36 9. 99   36 0. 02   36 0. 07   36	0. 44 29 0. 23 29 0. 41 29 0. 39 29 0. 16 29 0. 17 29 0. 18 29 0. 20 29 0. 34 29 0. 45 29 0. 60 29	9, 32 9, 16 9, 46 9, 57 9, 64 9, 63 1, 76 9, 67 1, 50 9, 56 9, 56 9, 56 9, 56 9, 56 9, 56 9, 56	40. 1 53. 2 57. 9 67. 6 74. 3 78. 0 77. 0 72. 5 52. 3 18. 7 16. 8	48. 3 62. 7 66. 8 78. 1 831. 9 86. 2 85. 1 72. 2 59. 7	45. 0 57. 7 61. 2 70. 0 75. 9 775. 9 779. 0 877. 3 67. 4 67. 5 67. 5 67. 5 67. 6 67. 6	53. 6 66. 4 69. 7 80. 6 84. 9 88. 1 58. 8 58. 6	35, 6 49, 1 51, 9 60, 7 68, 1 71, 9 72, 5 68, 5 58, 5	80, 3 76, 4 37, 4 54, 5 50, 6	71 74 84 87 95 95 90 98 84 80 72 02	14 36 34 53 60 62 65 58 40 26	34 48 48 60 67 71 72 68 57 43 43	36 46 47 57 64 70 71 68 58 44 45	36   36   36   36   36   36   36   36	78 6 82 5 71 5 76 4 78 5 80 5 80 5 83 6 83 6 83 6 83 6 83 6 83 6 83 6 84 6 85 6 86 6 86 6 87 6 88 6	54 7:57 7:51 6:51 6:59 7:69 8:52 8:54 8:53 8:52 8:55	3 0 9 0 6 0 2 1 0 5 3 3	356	238 333 352 472 620 728 750 689 513 320 327	. 235 . 348 . 389 . 518 . 680 . 787 . 796 . 725 . 553 . 343 . 320	5. 05 0. 43 1. 56 . 20 3. 57 4. 95 4. 32 4. 25	. 62 . 10 1, 59 1, 48 1, 73 1, 37 2, 73 2, 78 2, 19	3. 7 .0 .0 .0 .0 .0 .0 .0	5. 3 5. 3 4. 0 3. 3 3. 5 4. 7 4. 0 4. 2 3. 8 4. 4 6. 6	6. 0 5. 5 4. 5 3. 3 3. 7 5. 2 4. 6 6. 0 4. 4 4. 1 7. 0	5.3 5.1 4.2 2.7 3.5 5.1 4.4 4.4	4.7 5.9 5.7 4.7 3.8 5.2 4.7 5.6 4.4 7.0 5.0

WASHINGTON, D. C.

Charles and the Control of the Contr	1				<del></del> .		[13	=72	ft.; ]	w :=d=					D. C n=4		ha=	85 ft	.]										
							Wind	1													Nu	mbe	er of	days					- ALALE
		Ву	self-re	egister		Nt	ımbe	r of t	wind	s, 8 a	. m.	and	8 p.	m.				Pre	cip-	Sı	now		F	og	mı	axi- um up.	ure 32°		lec-
Month	Average hourly ve-	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	T or more	0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperatu or below	Thunderstorm	Aurora
January February March March April May June July August September October November December	Mi. 8. 2 7. 1 7. 8 8. 8 6. 2 5. 8 5. 7 6. 2 6. 4 7. 5 7. 2 7. 0	NW NW NW NW SW. SW. SW. NW NW	Mi. 388 244 341 300 222 255 300 244 299 288 21 38	NW. NW. W. NW. NW. NW.	2 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8 6 4 9 9 10 6 5 6 4	2 8 3 6 2 7 3 6 8 5 4 9	6 6 10 5 4 5 7 7 8 6 2 5	0 2 3 5 7 5 3 4 6 4 1 0	8 8 11 11 13 10 13 15 8 9 12 4	6 4 10 8 10 13 13 12 12 13 14 9	1 5 1 4 3 2 3 4 5	24 17 10 20 13 7 9 8 5 10 19 16	2 4 4 0 0 1 2 1 6 6 6 0 3	8 8 5 7 17 11 9 11 13 12 9 11	10 5 10 10 13 6 12 10 5 7 12 5	13 16 16 13 1 13 10 10 12 12 12 9 15	15 10 14 11 6 10 11 11 9 8 7 5 13	10 10 10 6 5 9 9 4 5 2 11	12 7 3 2 0 0 0 0 0 0 0 0 2 6 3 3 2	8 5 0 0 0 0 0 0 0 0 0 0 0 0 2 3 2 3 2 3 2 3	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	15 16 22 5 4 1 7 9 10 17 12 20	1 2 3 0 0 0 0 0 0 0 0 0 0	10 12 0 0 0 0 0 0 0 0 0 1 1 1	0 0 0 0 3 6 12 12 3 0 0	23 7	0 0 1 2 4 7 10 6 0 0 0	0 0 0 0 0 0 0 0 0 0 0
		WICHITA, KANS.  [H=1,300 ft.; H <sub>b</sub> =1,358 ft.; h <sub>t</sub> =85 ft.; h <sub>r</sub> =78 ft.; h <sub>a</sub> =93 ft.]																_											
July August September	13. 0 12. 9 10. 5 11. 4 10. 9 11. 0 11. 4 10. 9 11. 4	NE.	26 31 41 37 31 43 25 29 29 32 34 31 43	SW. SW. SW. SE. SW. SW. SW. SW. SW.	0 0 2 2 2 0 1 0 0 0 0 1 1 0 7	16	9 17 8 9 12 6 7 7 7 5 4 9	3 2 2 8 3 7 3 2 2 3 4 0	7 8 6 5 11 9 2 12 13 7 5 15	11 11 5 7 7 8 8 7 2 7 1 3	9 2 15 18 15 22 29 28 19 18 21 18	3 3 6 0 3 1 0 1 5 2 4 2	4 5 10 3 3 0 1 1 1 2 6 13 6 54	0 1 0 0 0 0 0 0 0 0 0	10 14 15 15 7 20 21 23 6 16 21 9	9 4 10 8 11 6 7 6 9 7 6 9	12 11 6 7 13 4 3 2 15 8 3 13	3 1 0 5 8 3 2 2 13 5 1 8	3 0 0 3 7 3 2 0 11 5 0 7	8 9 0 2 0 0 0 0 0 0 1 6	3 1 0 0 0 0 0 0 0 0 0 0 0 4 8	0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 3 0 1 2 0 0 0 6 8 2 9	1 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	13 15 0 4 0 0 0 0 0 0 0 0 0 2 30	0 0 0 1 1 17 29 27 12 0 0 0	26 25 6 0 0 0 0 4 14 20 101	0 0 0 3 9 7 2 3 9 1 0 1	0 0 0 0 0 0 0 0 0 0 0 0
							(H=	= 1,87		WIL Hь≈						=34	ft.; h	a = 50	) ft.]										
January February March April May June July October October December Year Year February Year March August September October Year Year September October November December October November December Year Year Year March	5. 4 9. 8 8. 4 10. 6 9. 3 8. 4 7. 2 8. 3 8. 5 8. 6 8. 2	SE. W. SE. SE. SE. SE. SW. W. SW.	36 37	NW. NW. W. NW. NW. SE. NE. W. NW. NW.	0 0 1 0 3 1 0 0 1 0 2 1	7 7 7 10 5 7 5 10 10 13 12 4 4	10 11 4 8 4 10 15 15 2 4 5 5	7 5 0 6 4 11 5 6 6 3 2 7	8 4 7 15 14 10 16 10 5 7 5 8	5 3 3 7 10 5 5 10 8 9 7 11 83	9 3 9 7 2 4 0 1 6 10 10 10	3 12 6 7 6 10 8 15 9	7 6 13 9 8 9 3 3 10 9 12 8	0 6 0 0 1 0 1 1 0 0 0 0 0	11 13 10 12 22 14 23 15 20 16 17 9	7 10 14 12 6 11 8 10 8 7 7 15	13 6 7 6 3 5 0 6 2 8 6 7	1.1 9 12 2 6 6 7 8 5 5 4 4	5 8 2 4 6 5 7 3 2 2 3	15 13 15 5 0 0 0 0 1 6 7 9	111 9 12 1 0 0 0 0 0 2 4 4 4	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5 5 3 1 0 0 0 0 0 2 0 1 1 1 1 1 1 1 1 1 1 1 1	3 3 2 0 0 0 0 0 0 1 0 1 0	31 28 9 6 0 0 0 0 0 0 3 8 17	0 0 0 0 4 8 21 8 4 0 0 0	0 3 16 27 31	0 0 0 0 5 6 10 6 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 1 3 9 3 3 0 2 4 6 7 0
							[H=	6 ft.;		WIL =72 ft						; ha=	= 107 ;	ft.]											
February 1 March 1 April 1 May 1 June 1 July 4 August 5 September 6 November 1	9.8 1 0.5 8 0.7 8 8.8 1 8.9 8 9.2 8 7.1 8 7.6 1 8.7 1	NW. N. S. NE. S. S. V. NE. V. NE. V. NE.	35 37 35 22 24 28 22 27 30 8 28	SW. NW. SW. SW. S. S. W. NW. NW. SW. NW.	2 3 3 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	17 15	10 8 10 9 12 3 3 8 22 19 10 20	7 7 6 10 10 4 5 4 3 7 3 3	6	6 7 15 10 10 4	9 8 11 14 11 15 22 14 7 7	4 8 4 4 4 14 5 2 3	12 7 9 5 5 8 8 5 6 4	1 2 0 0 0 1 1	14 9 9	6 11 11 15 15 11 7	14 13 9 3 5 7 7 9 10 8	12 7 4 6 10 14 11 10 7	0 9 6 2 6 0 9 9 9	2 3 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	17 17 18 6 10 9 8 11 15 15 20 23	6 2 5 0 3 0 0 3 2 3 1 5		0 0 0 0 1 4 10 10 10 0 0	0 0 0 0 1 0 1 0 2	1 0 5 6 3 9 0 4 4 2 0 0	0 0 0 0 0 0 0 0 0 0 0

94 133 62 78 10 144 108 114 117 92

Year..... 9.1 SW.

47 SW

## UNITED STATES METEOROLOGICAL YEARBOOK

Table 16.—Annual meteorological summaries for the year ended Dec. 31, 1936—Continued WINNEMUCCA, NEV.

$[\phi = 40^{\circ}58']$	N.:	λ=117°43′	w.1
[A TO 00		71 221 20	

									[φ=	=40°5	8' N.	; λ=	=117	°43′	W.	]											
	P	ressu	ге			Т	empe	rature	3										Ŋ	Aoistu	11.6						
		Extr	emes			M	ean			Exti	remes		Dew			lativ nidi		Vapo	r pres	ssure	Pred	cipitat	ion	(	Cloud	lines	S
Month	Monthly mean	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.	Noon, local time	8 p. m.	8 a. m.	<u></u> 8	8 p. m.	8 a. m.	Noon, local time	8 p. m.	Total	Maximum in 24 hours	Total snowfall	8 a. m.	Noon, local time	8 p. m.	Daylight
February March April May June July August September October November December	In. 25. 63 25. 49 25. 57 25. 58 25. 57 25. 62 25. 63 25. 69 25. 63 25. 62 25. 63	26. 03 25. 98 26. 09 25. 85 25. 73 25. 74 25. 80 25. 88 25. 91 26. 16 26. 06	25. 09 24. 87 25. 20 25. 22 25. 35 25. 27 25. 46 25. 22 25. 37 25. 39 25. 11	28. 7 30. 4 30. 3 38. 0 44. 2 52. 2 58. 5 56. 0 42. 7 35. 2 20. 1 23. 9 38. 4	0 37. 7 40. 0 50. 3 62. 1 69. 6 78. 4 88. 9 85. 9 73. 4 64. 8 50. 6 38. 1	37.8 39.7 51.8 63.4 71.2 89.2 85.1 73.1 63.8 47.9 34.8 61.3	66. 9	50. 2 56. 5 53. 4 39. 2 32. 5 16. 3	34. 0 35. 3 40. 8 51. 3 58. 5 66. 8 75. 3 72. 3 58. 7 51. 0 36. 8 30. 8	51 61 72 86 93 103 104 97 91 87 68 53	12 0 14 177 30 36 47 41 27 20 8 1	25 27 24 29 32 39 40 37 28 25 12 20	29 28 25 30 32 37 41 41 30 30 20 26	29 29 29 29 29 37 41 39 29 20 24	86 79 72 63 64 53 52 57 66 68 85	64 39 35 28 27 21 22 24 30 61	67 34 32 23 28 20 22 23 30 32 67	In. 0. 134 0. 132 0. 162 0. 183 0. 244 0. 264 0. 161 0. 134 0. 173 0. 114 0. 166	In. 0. 158 . 157 . 133 . 168 . 179 . 227 . 271 . 276 . 174 . 166 . 108 . 139 . 180	. 160		.36 .14 .25 .31 .12 .69 .47 T	3. 9 4. 4	5. 7 7. 6 3. 8 3. 4 3. 2 3. 7 2. 9 2. 6 1. 8 1. 0 5. 7		7. 9 5. 2 5. 6 3. 7 4. 2 3. 6 3. 2 1. 9 2. 5 1. 8 6. 4	7. 1 7. 8 4. 3 4. 5 3. 2 3. 9 3. 4 2. 8 1. 4 2. 6 1. 9 6. 3
					!			'			HEVI 6' N.;											r					_
January February March April May June July August September October November December	27. 70	28. 05 28. 15	27. 24 27. 31	24. 6 26. 2 40. 9 44. 9 59. 6 65. 4 69. 5 67. 9 61. 7 51. 4 36. 9 31. 7	36. 4 36. 4 51. 3 53. 9 73. 3 78. 2 79. 6 79. 6 73. 8 62. 5 47. 1 40. 2	67. 5 56. 0 41. 8 38. 5	38. 0 41. 6 56. 7 59. 3 77. 4 82. 2 84. 6 83. 7 77. 7 65. 5 50. 6 45. 2 63. 5	22. 2 35. 8 38. 9 49. 0 56. 6 63. 9 62. 3 56. 0 47. 0 31. 7 28. 2	29. 2 31. 9 46. 2 49. 1 63. 2 69. 4 74. 2 73. 0 66. 8 56. 2 41. 2 36. 7 53. 1	55 70 71 78 86 95 95 95 86 77 74 58	-7 -1 24 21 38 42 51 53 38 29 15 18	20 22 34 35 48 55 62 57 46 31 29	61 57 47 31 31	24 24 35 36 46 55 62 63 59 48 32 32 43		64 55 51 36 44 55 55 59 59 54 71	68 62 56 50 60 66 72 74 75 67 78	1. 126 . 130 . 206 . 223 . 339 . 448 . 573 . 567 . 480 . 336 . 185 . 165	0. 136 . 145 . 209 . 218 . 301 . 414 . 545 . 544 . 483 . 345 . 191 . 181	. 140 . 210 . 219 . 327 . 446 . 573 . 584 . 504 . 352 . 190 . 191	5. 19 2. 95 4. 59 3. 03 . 77 1. 67 2. 33 2. 94 5. 38 2. 44 . 60 3. 31	1. 08 2. 32 .91 .37 .73 1. 11 3. 70 1. 56 .24 .99	T .0 .0 .0 .0 .0 .0 .0 .7	6. 5 7. 2 6. 4 5. 8 3. 0 4. 3 5. 7 4. 6 4. 7 6. 2 6. 0 6. 9 5. 6	6. 5 5. 5 5. 3 6. 0 7. 7	4. 3 4. 7 5. 0 6. 7	6.39 5.88 5.33 4.58 5.55 5.55 7.4 5.5
											IMA ' N.; '				₹.]												
September. October November. December.	28. 86 28. 96 29. 22	29. 44 29. 27 29. 37 29. 17 29. 08 28. 98 29. 03 29. 25 29. 30 29. 53 29. 38	28. 18 28. 36 28. 52 28. 29 28. 35 28. 51 28. 58 28. 52 28. 52 28. 80 28. 34	52. 6 45. 5 28. 4 30. 8	74. 4 81. 6 82. 0 73. 4 67. 1 42. 7 39. 9	77. 8 86. 9 86. 0 75. 4 67. 2 42. 7	88. 7 88. 2 78. 0	32. 9 43. 5 51. 5 55. 9 60. 5 59. 6 49. 2 42. 3 24. 9	33. 0 22. 8 43. 3 56. 0 64. 2 67. 8 74. 6 73. 9 63. 6 56. 7 35. 6 34. 5	52 65 69 88 97 100 104 100 90 84 60 63	11 -1 24 21 37 48 49 49 37 31 17 13	27 12 25 34 39 46 45 40 36 22 27	42 41 41 39 37 25 30	30 16 26 32 37 42 41 42 40 37 26 30	56 55 62 70 77 86	56 39 31 29 35 24 30 33 52 70	61 37 29 27 32 22 22 29 34	0. 148 . 079 . 139 . 200 . 241 . 312 . 302 . 300 . 253 . 213 . 116 . 147 . 204	0. 158 . 097 . 143 . 184 . 217 . 278 . 259 . 263 . 245 . 222 . 134 . 166 . 197	0. 164 . 099 . 149 . 183 . 224 . 275 . 257 . 264 . 254 . 288 . 138 . 172	.84 .05 .27 .32 1.21 .38 T .25 .10 T	.30 .02 .19 .18 .71 .27 T .23 .10 T	9. 9. 2 T . 0 . 0 . 0 . 0 T	7. 5 6. 8 4. 5 6. 0 5. 5 2. 8 1. 9 2. 8 1. 5 5. 0 7. 0	6. 2 4. 8 5. 8 2. 4 2. 0 2. 3 2. 5 5. 1	5. 8 5. 8 1. 9 2. 0 2. 8 3. 0 4. 5	2. 6 2. 6 5. 1 7. 9
								YE			ONE					о.											
January February March April May June July August September. October November. December	23. 74 23. 87 23. 90 23. 92 23. 99 24. 00 23. 94 23. 98 24. 10	24. 09 24. 10 24. 13 24. 16 24. 16 24. 19 24. 22 24. 23 24. 36 24. 36 24. 13	23. 30 23. 36 23. 54 23. 54 23. 76 23. 77 23. 52 23. 52 23. 52 23. 54 23. 44	14. 8 7. 8 19. 3 29. 6 39. 5 47. 4 54. 5 49. 6 39. 2 32. 2 19. 1 19. 7	62. 3 67. 0 77. 9 71. 7 60. 2 50. 1 33. 2 26. 5	18. 8 13. 5 29. 1 45. 3 61. 5 66. 9 76. 3 70. 8 59. 5 47. 2 29. 4 23. 7		8. 5 2 15. 1 26. 8 36. 5 44. 6 52. 4 47. 9 36. 0 28. 2 15. 3 13. 2	17. 0 10. 9 24. 8 38. 5 51. 1 58. 0 66. 6 61. 9 51. 0 41. 6 26. 8 21. 1 39. 1	48 71 85 88 91 87 80 74 54 41	-8 28 33 45 34 20 17 -7 -7	2 13 24 30 39 43 41 29 24 13	7 16 25 29 38 42 41 30 26 18 17	7 16 27 30 37 41 40 30 26 17	75 74 778 69 69 67 67 67 67 67 67 67 67 67 67 67 67 67	65   35   36   36   36   36   36   36	73 58 52 34 39 33 37 36 46 58	059 079 136 168 241 281 266 162 126 077 082	. 090 . 140 . 162 . 235 . 270 . 274 . 172 . 141 . 098 . 094	. 068 . 093 . 150 . 165 . 224 . 265 . 265 . 169 . 137 . 091	1. 31 1. 60 .71 1. 64 .61 1. 54 2. 00 1. 62 .69 .67 .40 1. 21	0. 19 . 52 . 16 . 44 . 20 . 46 . 61 . 77 . 23 . 22 . 31 . 45	32. 1 29. 5 15. 3 9. 7 4. 5 T .0 2. 4 .5 7. 1 20. 4	7. 1 4. 4 4. 9 4. 4 3. 4 3. 5 2. 5 7. 5	8. 7 8. 4 7. 4 5. 3 5. 6 5. 6 5. 3 4. 8 4. 9 8. 2	8. 2 7. 6 6. 1 6. 5 7. 1 5. 6 4. 4 4. 3 4. 5 8. 0	7.8 7.1 5.4 6.0 5.9 5.2 4.3 4.5 4.4 8.1

WINNEMUCCA, NEV.

							H=	4,287	ft.; ]			ft.; l					; ha	=56 f	t.]										
							Wind	1												1	Vum	ber (	of da	ys					
		Ву	self-re	egister		Nı	ımbe	er of	wind	s, 8 a	. m.	and	8 p.	m.					eip-	Sı	10W		F	og	m	axi- um np.	ure 32°		lec- city
Month	Average hourly ve-	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	T or more	0.01 inch or more melced	Hail	Light	Dense	32° or below	90° or above	Minimum temperatu	Thunderstorm	Aurora
January February March April May June July August September October November December	Mi. 8.7 8.9 9.2 7.6 8.1 7.0 6.9 6.8 6.9 7.0 7.6		Mi. 30 36 27 24 32 27 30 25 25 16 23 36	SW. SW. NW. S. SE. W. NE. N.	0 2 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	17 22 52 11 28 77 9	15 9 17 17 22 14 9 15 20 28 37 26	3 0 1 1 0 1 0 4 3 2 0 2	1 0 0 1 2 2 2 2 1 0 0 0 3 3	6 2 0 7 5 8 11 8 1 2 4 3 3 57	28 39 17 16 15 14 26 22 11 10 4 21	4 5 10 10 8 15 7 7 7 5 11 3 2	2 2 10 6 5 4 6 2 12 2 2 3	0 0 0 0 0 0 0 0 0 0 1 0 0	7 1 14 11 18 16 13 21 26 23 23 8 181	3 11 8 14 10 8 16 6 1 4 5 6	21 17 9 5 3 6 2 4 3 4 2 17	12 13 5 5 5 6 4 5 3 2 0 9	9 4 3 3	13 13 7 3 2 0 0 0 0 0 1 1 11	5 8 5 1 2 0 0 0 0 0 0 0 6	0 0 0 0 0 0 1 1 0 0 0 0 0	0 1 0 1 0 0 0 0 0 0 1 0 0	0 0 0 0 0 0 0 0 0 0	0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 2 11 25 19 1 0 0	22 28		0 0 0 0 0 0 0 0 0 0 0
						H	=2,2	99 ft.	: Hs			EVII				) ft ·	h ~	EE #	7										
January February March April May June July August September October November December	8. 0 7. 8 7. 7 8. 2 5. 3 5. 7 6. 4 5. 5 4. 6 5. 7 8. 5 6. 0 6. 6	W. W. W. NW. NW. W. W. W. W. W.	34 30 30 29 21 26 20 21 16 24 32 26	W. W. W. W. NW. NW. NW. W.	1 0 0 0 0 0 0 0 0 0 0 1 0 0 2	0	7 9 5 4 6 4 3 3 5 6 5 6 6 5 6	9 5 4 13 7 11 5 7 15 14 6 15	2 0 0 1 2 2 1 2 3 3 1 3	0 1 1 6 3 1 0 3 1 0 1 1 1	0 1 5 3 6 10 7 9 5 4 6 5	37 30 35 17 17 15 38 25 16 20 28	6 9 8 14 14 8 4 9 9 10 10	1 0 0 0 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9 7 10 6 17 13 8 10 12 10 10	6 14 9 13 11 11 11 12 9 9 10 5	16 8 12 11 3 6 12 9 9 12 10 20	14 12 15 10 8 12 15 11 8 10 7 16	11 10 13 8 6 6 10 7 7 9 5 11	8 9 6 1 0 0 0 0 0 5 4 33	5 6 5 0 0 0 0 0 0 2 4	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	6 7 3 2 0 7 2 11 11 9 4 12 74	0 2 0 0 1 1 0 5 4 2 2 2 2	10 9 1 1 0 0 0 0 0 0 2 2 2 25	0 0 0 0 0 5 9 4 0 0 0 0	23 24 11 6 0 0 0 0 0 2 17 20	0 0 3 4 7 13 12 10 3 1 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0
						[	H=1	,0681	t.; E			MA,				52 ft.	: ha=	=67 f	t.1								!		
May	5. 0 7. 0 6. 8 7. 9 6. 6 7. 2 7. 0 5. 5 4. 6 3. 4 4. 3	NW. NW. NW. NW. NW. NW. NW. NW. SE. NW.	21 24 23 21 12 32	SW. W. W. W. W. NW. NW. SW. SW.	0 0 0 1 0 0 0 0 0 0 0	5 4 7 11 5 3 5 7 12 7 5 5 7	3 4 3 2 1 0 0 2 4 3 3 6 31	0 4 4 2 1 0 0 2 0 2 4 1	12 17 10 2 6 5 3 3 4 7 20 13	5 8 7 4 4 4 3 3 3 8 8 6 6 6 3	1 3 2 3 5 9 7 3 6 2 6 10	17 5 11 11 8 9 7 12 10 12 3	17 13 16 25 32 28 37 30 20 19 7	2 0 2 0 0 2 0 0 1 2 4 2	5 2 7 4 10 10 23 19 19 18 13	6 5 11 16 12 7 3 12 8 11 6 10	20 22 13 10 9 13 5 0 3 2 11 20	10 8 3 4 6 9 4 0 3 1 0 13	8 7 0 2 3 6 2 0 2 1 0 7	10 15 3 2 0 0 0 0 0 0 4 111	6 8 2 0 0 0 0 0 0 0 0 8 24	0 0 0 0 0 0 0 0 0 0 0 0 0 0	16 3 0 0 0 0 0 0 0 0 0 9 15 43	9 0 0 0 0 0 0 0 0 0 0 2 3	7 19 0 0 0 0 0 0 0 0 4 4 4	0 0 0 0 4 7 15 12 0 0 0 0 38	28 26 12 4 0 0 0 0 2 29 26 127	0 0 0 1 5 1 2 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
						[H:	=6,23					ONE ; h,=						6 ft.]											_
February	9. 5   8   6   8   8   2   8   7   8   8   7   7   9   8   8   2   8   7   7   9   8   8   4   8   8   8   8   8   8   8	SW. SW. SW. SW. SW. SW. SW. SW. SW.	32 36 26 37 33 36 27 37 25 20 8 27	SW. SW. SW. SW. SW. SW. SW. SW. SW.	0 1 2 0 4 2 2 0 0 2 0 0 0 0	4 5 9 6 9 10 9 2 3 4 5 2 6 8	1 3 5 5 6 1 2 4 2 5 1 2 3 7	1 3 0 2 0 0 2 0 0 0 0 0 0 0 0 0 0 0	3	10 13 10 9 7 8 11 16	22 26 23 22 32 25 29 27 32 27 32 21 26 26	7 9 13 4 6 8 10 7 14 1	2 1 6 5 1 3 2 7 9 9 0 2 2 0	1	5 0 2 5 7 8 5 10 14 14 13 2 85 1	19 10 17 10 10 9 9		21 14 14 8 12 11 11 8 6 4 17	10 7 11 6 9 8 7 5 4 2		0 2 2 4	0 0 0 0 1 1 2 2 2 1 0 0 0 0 0 0 0 0 0 0	0 0 0 0 2 0 1 0 0 0 0 0 1 0 0 0 4		27 21 10 5 0 0 0 0 0 0 8 18	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 9 22 30 31	0 0 0 1 4 8 15 11 2 1 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

YUMA, ARIZ. [φ=32°45' N.; λ=114°36' W.]

									$[\phi =$	32°48	5′ N.;	λ=	114°	36′	w.]												
	F	ressu	re			7	Гетре	ratur	θ										]	Moist	ure						_
		Extr	emes			М	ean			Ext	remes		Dev			elati mid		Vapo	or pre	ssure	Pre	cipitat	ion	(	Clou	dines	SS
Month	Monthly mean	Maximum	Minimum	8 a. m.¹	Noon, local time	8 p. m.¹	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.1	Noon, local time	8 p. m. <sup>1</sup>	8 a. m.1	Noon, local time	8 p. m.1	8 a. m.¹	Noon, local time	8 p. m. <sup>1</sup>	Total	Maximum in 24 hours	Total snowfall	8 a. m.1	Noon, local time	8 p. m. <sup>1</sup>	Daylight
August September. October November. December.	29. 58 29. 59 29. 63 29. 61 29. 73 29. 92 29. 90	29. 83 29. 79 29. 89 29. 86 29. 93 30. 36 30. 22	29. 41 29. 39 29. 48 29. 40 29. 38 29. 64	81. 0	102.2	95. 8 102. 2 103. 8 103. 1 96. 3 83. 1 70. 4 62. 3	72. 9 82. 9 90. 9 98. 4 104. 5 107. 2 106. 2 100. 1 88. 8 76. 6	56. 7 62. 7 71. 3 78. 9 79. 8 70. 0 59. 3 51. 0	55. 4 59. 6 67. 6 73. 8 80. 6 87. 9 93. 0 93. 0 85. 0 74. 0 63. 8 56. 0	76 84 94 103 107 115 118 114 109 104 86 76	34 32 38 45 56 56 67 70 54 51 40 32	29 37 36 41 45 54 64 68 58 47 33 33 45	61 64 51 45 33 33	32 36 29 31 35 47 60 64 51 45 33 33 33	% 53 65 52 51 51 52 58 65 61 60 48 58	% 26 31 17 15 15 18 28 31 26 26 30 24	% 31 30 17 14 12 17 26 29 23 29 30 36 24	In. 0. 167 . 227 . 217 . 264 . 311 . 430 . 618 . 706 . 513 . 331 . 207 . 195	In. 0. 164 . 229 . 169 . 185 . 227 . 335 . 562 . 599 . 433 . 306 . 206 . 193 . 301	In. 0. 183     . 219     . 163     . 177     . 206     . 340     . 542     . 599     . 404     . 305     . 209     . 198     . 295	In. 0. 24 . 18 T . 00 . 00 T . 18 . 11 . 02 T . 42 . 14 1. 29	In. 0.24 .08 T .00 .0 T .17 .07 .02 T .26 .14	In. 0.0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .	1.5	2. 7 2. 1 1. 7	3. 5 3. 6 2. 4 1. 6 1. 3 . 2 2. 2 1. 5 . 7 1. 0 2. 0 2. 5	3. 3 2. 2 1. 7 1. 0 .3 2. 0 1. 5 .6 1. 3 1. 9 2. 8
											ROW,																
February March April May June July September October November December	30, 55 29, 97 30, 06 29, 93 29, 94 29, 78 29, 77 29, 98 29, 97 30, 04	31. 10 30. 72 30. 79 30. 40 30. 32 30. 28 30. 08 30. 46 30. 50 30. 46 30. 62	29. 36 29. 54 29. 54 29. 44 29. 10 29. 32 29. 54 29. 50 29. 48 29. 08	-27. 9 -18. 7 -2. 4 10. 6 33. 8 36. 3 38. 8 27. 2 9. 6 3		-24.7	-20.8 -9.1 13.7 22.1 45.4 48.1 52.5 31.1 13.7 4.2 -6.4	-22. 4 -33. 3 -25. 7 -8. 5 6. 5 29. 3 31. 0 34. 0 25. 4 5. 9 -6. 3 -16. 7	-27. 0 -17. 4 2. 6 13. 8 37. 4 39. 6 43. 2 28. 2 9. 8 -1. 0 -11. 6	-6. 0 28. 0 42. 0 40. 0 61. 0 65. 0 71. 0 40. 0 28. 0 24. 0	-44. 0 -40. 0 -39. 0 -15. 0 18. 0 22. 0 26. 0 21. 0 -15. 0 -22. 0										0. 00 .00 T .01 T .37 .60 .55 .27 .12 T .00 1. 92	0. 00 · 00 · T · 01 · T · 15 · 23 · 24 · 13 · 08 · T · 00 · 24	0. 0 .0 T .1 T T .1 2. 5 3. 2 3. 2 T .0 9. 1	2. 8 .7 3. 6 4. 9 5. 7 6. 8 7. 3 9. 4 8. 4 3. 8 4. 2. 4 4. 9		2. 7	4. 4 1. 0 4. 5 5. 3 6. 4 6. 5 7. 4 9. 0 7. 6 4. 7 5. 5 2. 6 5. 4
								Ι			IARE ' N.; )					A.											
February March April May June July September October December December December September Septem	(2) 29, 80 29, 57 29, 73 29, 79 29, 37 29, 94 30, 07 30, 07 30, 49 32, 41 32, 59 32, 70 32, 7	30. 29 30. 49 30. 26 30. 10 30. 33 30. 34 30. 35 30. 55 30. 12 30. 03 30. 26	28. 87 28. 74 29. 15 28. 78 29. 43 29. 31 29. 32 28. 97 28. 82 28. 49 28. 74	29. 5 37. 0 33. 7 36. 7 38. 9 45. 3 50. 2 52. 3 50. 7 44. 0 35. 0 35. 5 40. 7		29. 7 39. 2 37. 3 40. 4 43. 2 52. 0 55. 3 57. 7 54. 0 46. 5 36. 8 36. 5	42. 6 42. 2 44. 9 46. 7 54. 8 58. 1 60. 8 56. 2 47. 9 39. 3 38. 9	36. 2 42. 6 47. 4 49. 4 46. 9 40. 2 30. 6 30. 8	28. 8 38. 1 36. 2 39. 2 41. 4 48. 7 52. 8 55. 1 51. 6 44. 0 35. 0 34. 8 42. 1	42 55 69 55 55 64 75 71 69 55 52 48 75	15 18 19 23 31 36 42 44 38 34 20 19											2. 31 2. 71 1. 62 3. 46 1. 64 1. 27 . 85 1. 95 2. 32 3. 10 1. 22 3. 46	2. 3 22. 6 7. 5 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0	8. 5 6. 0 6. 8 8. 6 9. 2 6. 9 7. 6 7. 9 8. 1 8. 5 7. 3 8. 2 7. 8		8. 1	8. 4 6. 8 6. 7 8. 7 9. 0 6. 9 7. 2 8. 1 8. 2 8. 6 7. 7 8. 6 7. 9
											NKS N.; λ																
February. 2 March. 2 April 2 May. 2 June 2 July 2 September. 2 October. 2 December. 2	9, 37 3 9, 47 2 9, 21 2 9, 42 2 9, 38 2 9, 43 2 9, 43 2 9, 25 2	30. 19 1 30. 18 1 39. 92 1 39. 63 1 39. 81 1 39. 75 2 39. 75 2 39. 85 2 39. 85 2	28. 58 - 28. 62 28. 78 28. 51 28. 86 28. 89 28. 85 28. 57 28. 51 28. 23 -	5 20. 3 39. 8 53. 0 52. 7 49. 9 35. 3 28. 2 11. 8	-8. 5 12. 8 35. 5 56. 3 69. 2 67. 2 64. 1 49. 0 33. 5 11. 9	-4. 2 15. 9 37. 6 57. 3 71. 4 68. 2 66. 3 51. 7 34. 8 13. 5	-2.6 18.0 40.5 59.8 74.2 70.9 68.8 53.5 37.1 18.3 -6.0	-8. 7 14. 8 37. 5 50. 9 50. 1 46. 6 31. 5 23. 4 3. 3 -19. 4	-14. 4 4. 6 27. 6 48. 6 62. 6 60. 5 57. 7 42. 5 30. 2 10. 8	36 15 39 63 72 88 86 83 62 56 54 34 88	30 40 39 34 23 3 -29 -45	-22 -4 13 34 48 49 48 32 25 7 -16		-12 3 17 33 45 46 46 34 26 8 -14	74 79 84 89 94 89 86 82 85	75 61 47 46 49 50 57 52 75 82 88	67 56 41 42 44 48 52 51 72 80 87	. 018 . 037 . 088 . 195 . 337 . 354 . 339 . 185 . 138 . 070 . 026	0. 032 0. 033 049 .108 .205 .326 .326 .331 .180 .143 .073 .030 .152	. 024 . 050 . 098 . 192 . 308 . 322 . 317 . 195 . 145	. 15 . 49 T 1. 03 . 67 . 81 2. 12 . 76 2. 02 1. 88 1. 12	0.06 .10 .20 T .37 .19 .29 .38 .38 .60 1.59 1.60	.0 T 2.3 9.9 8.2	3. 1 5. 4 3. 0 6. 3 5. 1 6. 8 6. 7 7. 0 7. 5 5. 2	5. 6 7. 1 6. 4 7. 1 7. 1 7. 8 6. 1	3. 3 7. 8 5. 9 7. 0 6. 3 7. 3 7. 0 7. 4	4. 6 4. 1 6. 4 3. 4 6. 7 5. 7 6. 9 6. 5 6. 9 7. 5 7. 6 6. 1 6. 0

See footnotes on p. 155.

YUMA, ARIZ.

	1						[]	H=1	38 ft.	; H <sub>b</sub>	=142	ft.; ]	h <sub>t</sub> =9	9 ft.;	h <sub>r</sub> =2	2 ft.;	ha=	54 ft.	]										
							Wind	i												1	Num	ber	of da	ıys		-			
		Ву	self-re	egister		Nu	mbei	r of w	vinds	s, 8 a.	m,1	and	8 p.	m.1				Pre		Sı	now		F	og	m	axi- um np.	ure 32°		lec-
Month	Average hourly ve-	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over	T or more	0.01 inch or more melted	Hail	Light	Dense	32 <sup>™</sup> or below	90° or above	Minimum temperatu	Thunderstorm	Aurora
January February March April May June July August September October November December Year	6. 9 6. 4 6. 0 6. 3 6. 1 5. 5 5. 4 5. 3 6. 9 6. 0	W. W. W. S. S. W. W.	Mi. 22 28 29 32 32 27 30 30 25 19 24 26	N. N. SE.	0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0	13 10 11 10 1 1 2 2 9 11 22 20	4 9 3 3	4 10 1 2 4 4 2 2 6 7 4 3 49	0 0 3 5 4 8 10 9 4 6 1 5 5 5 5	3 6 7 2 3 7 12 9 4 3 0 4 60	2 2 8 14 15 16 17 12 9 5 4 3	18 16 18 12 19 18 14 5	3 4 8 3 4 2 2 0 4 3 6 6 6 4 5 5	2 2 0 2 3 1 3 1 1 0 0 2 7	15 15 23 23 27 30 25 25 28 26 23 20 280	13 12 6 7 4 0 6 6 6 2 4 6 8	3 2 2 0 0 0 0 0 0 0 1 1 1 3	2 3 0 0 0 0 2 2 1 0 5 1	1 2 0 0 0 0 0 1 1 2 0 0 5 1 1	000000000000000000000000000000000000000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1	0 0	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 5 222 28 26 31 31 27 13 0 0	0 0 0 0 0 0 0 0 0 0	0 1 0 0 0 0 6 4 1 0 2 0	0 0 0 0 0 0 0 0 0 0
		BARROW, ALASKA [H=22 ft.; H <sub>b</sub> =13 ft.; h <sub>t</sub> =4 ft.; h <sub>r</sub> =2 ft.]																											
April May June July August September October November December	12. 2 10. 6 12. 3 13. 4 15. 4 16. 3 11. 1 8. 6	NE. NE. NE. SE. SW. NE. NE. NE.	46 35 29 36 29 26 33 41 40 40 35 40 46	E.E. E. NE. NE. NE. NE. SE. E.	3 2 0 1 0 0 1 1 2 5 2 1 1 1 8	6	29 18 28 8 20 7 6 3 34 50 34 26 26 263	13 5 13 17 20 8 8 6 1 3 3 2 99	4 5 2 9 7 18 8 7 5 2 2 4 73	3 1 4 3 3 3 1 5 1 1 0 3 28	1 0 2 4 2 7 19 18 9 0 4 15 81	2 5 8 8 1 5 9 13 4 0 2 1	9 18 2 10 3 7 6 8 4 1 5 3 7 6	0 0 0 0 0 0 1 1 0 0 0 0 0	17 25 17 13 10 9 5 1 4 14 12 20 147	0 2 0 4 3 2 5 4 7 3 3 3	14 2 14 13 18 19 21 26 19 14 15 8 183	0 0 0 1 0 5 9 5 3 0 0 0 26	0 0 0 0 0 0 3 5 3 3 1 0 0	0 0 1 3 5 1 5 6 6 4 2 0 33	0 0 0 1 0 0 1 1 3 3 0 0 9	0 0 0 0 0 0 0 0	8 6 6 6 6 3 4 7 10 3 0 2 0 55	8 0 2 4 11 9 13 14 1 0 1 0 63	31 29 31 26 28 0 0 0 24 31 30 31 261	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	31 29 31 30 31 21 16 14 30 31 30 31 30 31 30 31 30 31 30 31 30 31 30 31 30 31 30 31 30 31 30 31 30 31 30 31 30 30 31 30 30 30 30 30 30 30 30 30 30 30 30 30	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 10 10 0 0 0 0 0 0 0 4 9 13 16
							[E	H = 40				[AR] .; h <sub>t</sub> =					=	ft.]											
January February March April May June July August September October November December Year		(3) NW. SE. S. E. S. S. S. S. S. S. S. S. S. S. S. S. S.				6 4 3 7 3 3 2 12 5 10 8 1 64	5 2 0 9 2 4 5 0 0 2 4 1 34	3 4 6 9 2 5 15 0 0 2 2 2 0 48	5 29 9 13 13 15 5 0 0 6 9 15	3 6 11 4 17 14 5 23 23 9 8 9	8 2 17 5 11 7 17 6 11 7 15 19 125	3 0 3 1 3	15 1 7 10 9 3 3 11 14 21 9 8	16 10 6 3 2 9 7 9 4 2 4 1	1 6 5 3 0 5 4 4 1 1 3 0 33	9 7 11 1 4 10 6 6 6 5 6 6 5 76	21 16 15 26 27 15 21 21 24 24 21 26 257	17 29 9 13 20	14 26 3 9 17 16 22 23 27	22 2 10 5 0 0 0 0 0 0 11 8 58	18 2 8 2 0 0 0 0 0 0 0 11 8 49	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 0 0 3 8 6 5 2 3 0 0 2 8	0 0 0 0 0 5 0 0 0 0 0	12 1 0 0 0 0 0 0 0 0 0 0 0 7 25	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	28 10 20 12 3 0 0 0 0 0 16 15 104	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
						i	[H=	440 ft				NK:				t.; h	<b>=</b> 87	ft.}											
February March April May June July August September October November	4. 4 5. 0 6. 4 7. 1 6. 2 8. 6. 6 8. 5. 8 8. 5. 9 15. 5 14. 8 13. 9	NW. N. S. N. NE. SW. S. NE. NE. NE. VE.	24 38 32 22 32 23 23 23 26 26 27	NE. NE. S. N. SE. SW. SSE. SSW. SSW.	0 0 1 1 0 1 0 0 0 0 0 0 0	14 11 6 13 9 10 6 3 9 8 10 6 105 1	8 6 9 11 9 2 4 9 18 18 18 9 8	4 3 3 2 6 3 2 9 7 5 3 3 3 5 5 5	1 4	5 11 15 12 3 11 18 15 10 11 10 10 10 31	- 1	12 8 5 13 4 10 5 4 3 11 13	14 9 5 9 9 7 4 5 3 4 7 9	1 2 0 1 1 1 2 0 0 3 4 3 18 1	6 6 7 3 9	13 8 12 7 4 8 8	14	12	0 7 5 6 9 4 12 1 8 1 8	7 8 16 2 0 0 0 0 4 4 16 6 6 7	0 9 12 11	0 0 0 0 0 0 2 0 1 0 0 0 0 0 0 0 0 0 0 0	4 7 2 0 0 0 3 2 4 9 4 19 54	0 4 0 0 0 0 1 1 0 0 1 1 5 12	29 29 28 8 0 0 0 0 12 21 30 157	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	31 29 31 30 3 0 0 0 19 30 30 31 234	0 0 1 0 2 3 0 0 0	16 12 9 19 0 0 0 3 15 0 2 6 82

See footnotes on p. 155.

JUNEAU, ALASKA [φ=58°18′ N.; λ=134°24′ W.]

									[φ=	-08-1	8′ N.;	^=	134	24	[، ۷۷												
	I	ressu	re			Г	empe	ratur	е										]	Moist	ure						
		Exti	'emes			M	ean			Ext	remes		Dev			elati midi		Vap	or pre	ssure	Pre	cipita	tion		Clo	udir	ess
Month	Monthly mean 2	Maximum	Minimum	8 a. m. <sup>1</sup>	Noon, local time	8 p. m.¹	Maximum	Minimum	Monthly	Maximum	Minimum	8 a. m.1	Noon, local time	8 p. m.1	8 a. m.1	Noon, local time	8 p. m.1	8 a. m.¹	Noon, local time	8 p. m. <sup>1</sup>	Tota1	Maximum in 24 hours	Total snowfall	8 a. m.¹	Noon, local time	8 p. m.1	Daylight
March April May June July	29. 96 29. 81 29. 86 29. 85 29. 83 29. 84 29. 94 29. 89 29. 89 29. 85 29. 61	30. 36 30. 44 30. 27 30. 25 30. 10 30. 15 30. 22 30. 31 30. 32 30. 39 30. 25	29. 13 29. 24 29. 33 29. 33 29. 62 29. 36 29. 29 28. 97 28. 78	53. 0 52. 7 47. 8 46. 1 41. 9 28. 0	27. 5 16. 9 34. 3 46. 5 52. 4 65. 1 60. 0 61. 2 52. 5 48. 4 42. 9 28. 7	27. 3 17. 3 34. 8 47. 1 53. 9 66. 8 61. 5 63. 7 52. 9 48. 7 43. 0 28. 0	35. 9 48. 9 55. 4 69. 4 63. 7 64. 9 54. 8 51. 1 45. 7	22. 7 10. 0 28. 7 35. 0 40. 7 51. 3 51. 1 50. 8 45. 1 42. 7 38. 6 24. 5	26. 6 15. 0 32. 3 42. 0 48. 0 60. 4 57. 4 57. 8 50. 0 46. 9 42. 2 27. 8	42 42 44 62 79 80 79 76 67 60 54 44	0 -5 20 24 32 44 45 34 29 30 10	0 21 1 23 31 39 46 49 50 43 43 38 20	21 -1 24 31 36 44 50 51 42 44 38 21	° 22 -1 22 31 36 44 49 52 43 44 38 21	% 82 58 73 78 86 78 88 91 85 90 85 74 81	45 66 59 59 51 72 71 72 85 84 72	44 63 59 56 49 69	In. 0. 120     . 050     . 133     . 175     . 239     . 317     . 349     . 357     . 285     . 281     . 121     . 222	In. 0. 122 . 048 . 135 . 177 . 219 . 295 . 363 . 376 . 279 . 292 . 237 . 119 . 222	In. 0. 127 0. 129 129 179 219 298 355 383 285 299 234 121 223	In. 4. 86 2. 40 7. 74 7. 18 5. 59 . 54 6. 48 2. 76 12. 34 18. 71 25. 87 9. 11	In. 1. 18 1. 49 1. 35 2. 40 . 95 . 24 1. 35 . 24 1. 35 . 24 2. 69 2. 14 3. 89 3. 20 3. 89	In. 30. 3 23. 1 30. 7 4. 8 . 0 . 0 . 0 . T T 8. 2 43. 2	5. 7 7. 4 6. 6 7. 3 8. 8 9. 0 8. 4	8. 1 5. 6 7. 9 7. 3 7. 9 9. 1 9. 4 7. 5	7. 0 5. 1 7. 2 6. 5 8. 1 5. 6 7. 7 6. 5 8. 0 8. 7 9. 2 7. 5	8. 3 4. 1 7. 2 6. 7 7. 8 5. 8 8. 0 7. 0 7. 9 9. 1 9. 7 7. 8
											IAK,											!		!		!	
Tanana	00.00	00.01	00.00								' N.;	\=1	.52°2	24′ V	V.]	_			1			1	-		-		
August September_ October November_ December_	29. 70 29. 62 29. 73 29. 51 29. 75 29. 80 29. 78 29. 46 29. 44 29. 58	30, 21 30, 35 30, 19 30, 01 30, 09 30, 06 30, 16 30, 21 30, 06 30, 05 30, 40	28. 59 28. 72 28. 91 28. 53 29. 37 29. 31 29. 38 28. 98 28. 64 28. 60	33. 9 39. 4 49. 7 54. 5 53. 3 47. 0 45. 1 35. 8 30. 1		36. 8 36. 4 35. 5 44. 0 60. 8 64. 5 60. 4 53. 9 49. 8 39. 4 32. 6	38. 7 39. 8 38. 2 46. 5 46. 9 64. 3 68. 4 62. 9 56. 1 52. 6 42. 7 35. 7	31. 7 29. 8 25. 2 31. 7 37. 5 47. 7 52. 3 51. 4 44. 7 41. 9 32. 5 26. 4	35. 2 34. 8 31. 7 39. 1 42. 2 56. 0 60. 4 57. 2 50. 4 47. 2 37. 6 31. 0	43 54 46 62 53 78 81 70 63 58 54 44	18 1 2 23 33 36 45 48 35 34 9 8										8. 14 4. 75 1. 97 1. 10 8. 44 1. 27 . 76 4. 53 5. 75 11. 59 11. 61 1. 93	1. 09 . 87 . 66 . 72 1. 69 . 44 . 37 . 92 1. 42 2. 60 2. 64 . 63	.0	4. 9 5. 9 8. 5 6. 0 6. 1 6. 3 7. 0		8. 4 7. 7 6. 0 6. 0 8. 6 5. 4 6. 0 8. 0 8. 1 8. 0	8.6 7.7 5.9 6.0 8.5 5.2 5.9 7.8 7.9 7.8
Year	29. 62	30. 18	28. 84	40. 4		46. 5	49. 4	37. 7	43. 6	81	1						-				61. 84	2. 64	47. 6				
											ΙΕ, Α Ν.; λ				7.]												
February March Spril May June July August September 2	29. 82 6 29. 94 6 29. 64 6 29. 92 6 29. 88 6 29. 87 6 29. 85 6 29. 68 6 29. 73 6 29. 65 6	30. 61 30. 55 30. 32 30. 05 30. 41 30. 30 30. 23 30. 51 30. 28 30. 24 30. 28 30. 24 30. 28	29. 45 29. 02 29. 13 29. 01 29. 63 29. 27 29. 39 29. 27 29. 32 28. 86 28. 92	8. 3		30. 6 45. 4 51. 9 54. 9 55. 7 47. 5 35. 5 20. 8 7. 8	48. 3 56. 2 57. 9 57. 8 49. 1 36. 7 23. 5 12. 4	33. 4 41. 8 45. 8 44. 4 36. 2 23. 0 13. 6 5	8. 2 8. 5 3. 7 26. 0 40. 8 49. 0 51. 8 51. 1 42. 6 29. 8 18. 6 6. 0	35 32 37 43 57 74 84 71 58 55 41 34	24 33 35 29 24 10 -10 -22	2 - 2 - 17 - 30 - 42 - 47 - 48 - 24 - 15 - 1 -		2 0 20 33 42 48 50 40 28 15	74 _ 71 _ 70 _ 72 _ 76 _ 85 _ 90 _ 95 _ 79 _ 80	6	64 64 64 63 69 79 82 76 73 76	0.057 - 052 - 044 - 099 - 170 - 324 - 339 - 233 - 129 - 097 - 051 - 155		0. 056 . 054 . 051 . 112 . 189 . 265 . 333 . 365 . 249 . 151 . 098 . 053	0. 96 . 56 1. 52 . 89 . 52 1. 67 2. 36 3. 56 2. 61 2. 04 1. 34 1. 49		6. 9 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1. 2 5. 3 5. 8 7. 3 5. 8 5. 9 5. 4 5. 0 5. 1		5. 2 5. 5 5. 6 5. 8 7. 5 7. 7 7. 0 7. 7 6. 6 5. 3	7. 5 5. 4 4. 8 5. 9 7. 7 7. 3 7. 5 8. 6

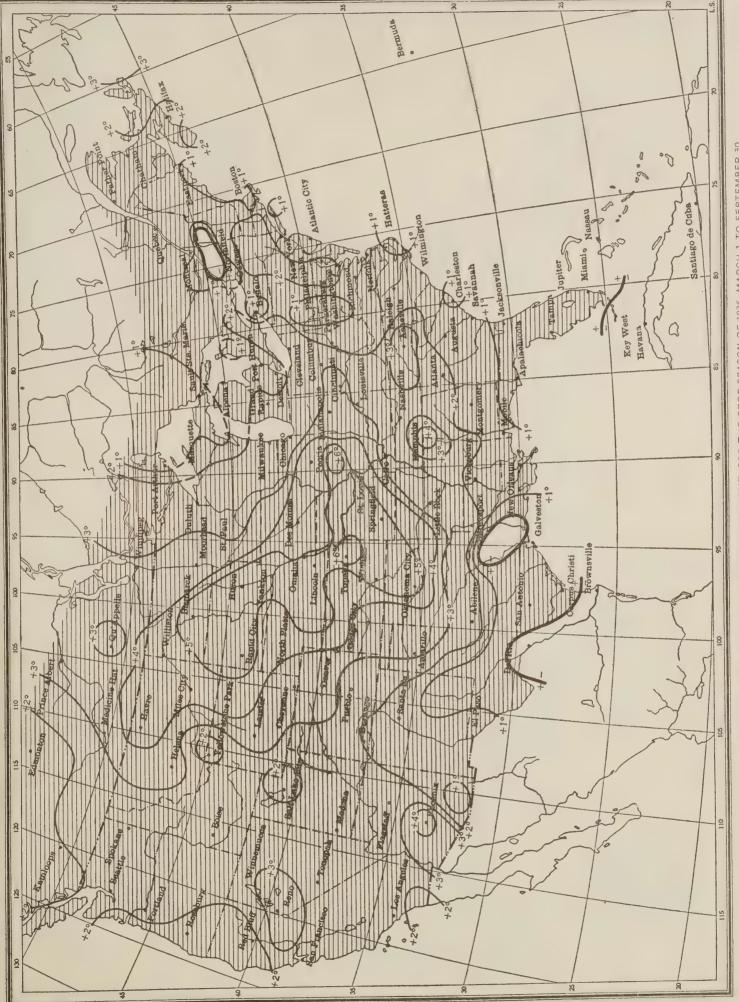
See footnotes p.155.

## JUNEAU, ALASKA

							[H	=72	ft.; E	B=dE	80 ft.;	h <sub>t</sub> =	96 ft	t.; h <sub>r</sub>	=88	ft.; h	1a=1	l6 ft.	]										
						7	Wind	!												1	Juml	ber	of da	ys					_
		By s	elf-re	gister		Nu	mbe	r of w	vinds	s, 8 a.	m.1	and 8	3 p. 1	m.i				Pre itat		Sı	ow		F	og	Ma mi ten		1re 32		ec-
Month	Average hourly ve-	Prevailing direction	Maximum velocity	Direction at time of maximum velocity	Days with 32 miles or over	North	Northeast	East	Southeast	South	Southwest	West	Northwest	Calm	Clear	Partly cloudy	Cloudy	0.01 inch or over	0.04 inch or over		0.01 inch or more melted	Hail	Light	Dense	32° or below	90° or above	Minimum temperature or below	Tlurderstorm	Aurora
January February March April May June July August September October November December Year	Mi. 6.3 10.6 8.8 6.8 6.1 5.9 6.0 4.7 6.7 7.7 9.5 9.0 7.3	S. E. SE. S. S. S. S. S. S. S.	Mi. 25 30 27 24 24 25 20 21 29 30 31 25 31	E. NE. SE. SE. SE. SE. SE. SE. SE.	000000000000000000000000000000000000000	0 1 1 1 2 1 0 0 2 0 0 0 3 11	4 15 6 2 0 4 1 1 5 0 3 12 53	1 12 10 1 3 2 2 1 2 1 3 7	12 15 20 16 7 2 11 2 12 21 28 12	24 6 10 14 27 26 27 28 22 17 17 13	0 1 3 8 4 5 5 5 5 2 3 1 1	6	2 1 4 1 0 1 0 4 2 1 1 4 2 1	3 1 0 1 7 10 6 12 2 8 1 2	4 15 6 8 5 11 3 8 6 2 0 5	4 5 4 3 2 6 7 4 1 3 3 5	23 9 21 19 24 13 21 19 23 26 27 21 246	18 6 19 14 22 9 22 17 22 27 28 25	13 5 19 12 17 5 18 12 20 27 28 20 196	18 11 18 7 0 0 0 0 0 1 1 5 24 85	14 5 13 4 0 0 0 0 0 0 0 1 20	000000000000000000000000000000000000000	6 0 0 2 0 2 3 4 1 9 1 0	4 0 0 0 0 0 0 2 0 0 0 2 1 0 0 9	19 25 7 0 0 0 0 0 0 0 0 0 16	000000000000000000000000000000000000000	29 29 24 5 0 0 0 0 0 3 4 23	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 4 5 7 0 0 0 0 0 4 1 0
	Year 7 3 S 31 SF 0 11 52 45 159 231 20 100 01 50 70 45 20 20 20 20 20 0 0 16 0 23 0																												
January February March April May June July August September October November December	7.8 7.1 7.9 6.4 10.8 4.9 5.6 5.4 6.3 7.4 8.5 10.6	NE. NW. SE. NE. NE. NE. NE. NE. NE. NE. NE. NE.	34 30 33 29 33 20 24 29 29 26 40 42 42	NE. SW. SE. SW. SE. NE. NW. NW.	3 2 5 1 1 2 0 0 0 0 0 0 6	4 2 0 1 1 7 5 5 3 2 3	23 18 4 10 11 14 13 19 14 12 5	0 1 1 7 5 5 4 3 6 1 2	15 10 9 6 37 10 7 14 9 13 13	3 3 8 8 2 7 4 5 1 7 8	5 9 25 10 2 4 10 9 9 9 8	1 4 4 5 2 4 8 1 4 3 3	11 11 11 13 1 8 11 6 14 15 18	0 0 0 0 1 1 1 0 0 0 0	2 5 9 10 1 11 10 3 5 1 1 9	4 5 11 5 6 8 9 9 4 9 10 7 87	25 19 11 15 24 11 12 19 21 21 21 21 22 21	26 17 10 8 24 7 7 20 17 22 21 9	22 15 8 5 19 4 4 17 14 18 18 8	11 8 13 9 1 0 0 0 0 0 1 1 9 7	6 8 7 3 0 0 0 0 0 0 6 3	0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8 5 1 1 2 2 3 4 8 3 2	3 3 0 7 2 7 2 5 0 2 1 1	2 1 3 1 0 0 0 0 0 0 3 8	000000000000000000000000000000000000000	16 15 29 13 0 0 0 0 0 0 10 22 105	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 1 3 0 0 0 0 0 1 1 1 0 0
							[B	[=28	ft.; ]					ASK.		.; h <sub>a</sub>	=32	ft.]											
January February March April May June July August. September October November December	9. 0 9. 6 8. 9 7. 6 7. 9 8. 1 9. 5 9. 1 10. 6 9. 2	NE. NE. E. W. W. S. NE. NE. NE.	54 47 40 38 31 20 25 32 30 34 40 54	N. NE. NE. NE. SS. W. SW. N. SW. N.	6 3 3 2 0 0 0 1 0 1 1 3 2 2 0	16 9 12 8 8 5 6 9 8 10 17 11	31 37 20 17 19 2 4 6 16 24 25 22 22 223	9 7 14 14 18 4 1 4 7 6 8 10 92	0 0 0 4 9 9 8 9 4 8 1 7	1 1 2 4 3 9 11 10 3 3 1 2	1 1 1 2 6 19 15 11 8 3 0 2	1 1 3 6 3 7 13 11 3 1 1 3 5 5 3	3 1 8 1 4 1 4 2 9 6 6 5 5	0 1 2 4 2 4 0 0 0 2 1 1 0	5 13 13 11 6 3 5 6 4 7 13 4	5 3 9 6 15 13 6 8 7 5 2 4	21 13 9 13 10 14 20 17 19 15 23	11 9 13 10 9 14 13 16 16 14 14 12	4 8 10 14 12 8 10 9	24 11 18 15 4 0 0 0 2 15 11 16	10 9 13 9 1 0 0 0 1 12 11 12 11 12	0 0 0 0 1 0 0 0 1 1 0 0 0 3	0 2 7 5 3 12 10 3 6 8 7 11	0 1 0 1 1 2 1 1 1 0 0	28 29 27 11 0 0 0 0 6 23 28	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	31 29 31 30 13 0 0 1 6 28 27 31	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5 17 13 6 0 0 0 3 3 10 13 2

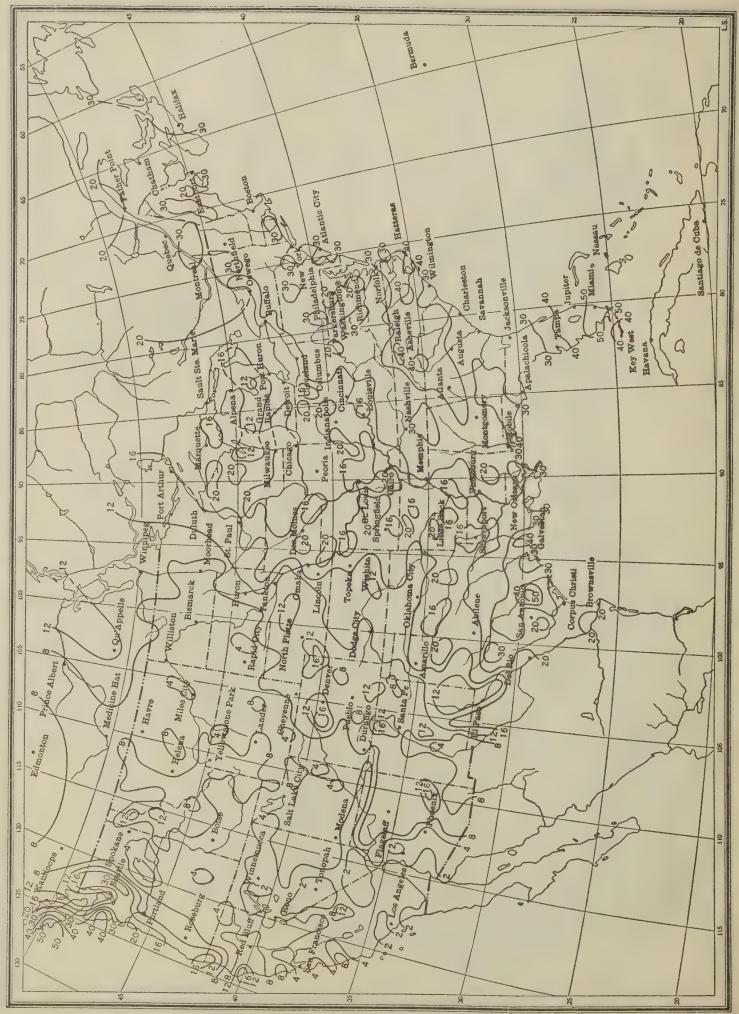
¹ Hours at Dutch Harbor, 12 a. m. and 12 p. m., 165th meridian time; at Barrow, Fairbanks, and Kodiak, 2 a. m. and 2 p.m., 150th meridian time; at Nome 1 a. m. and 1 p. m., 165th meridian time.

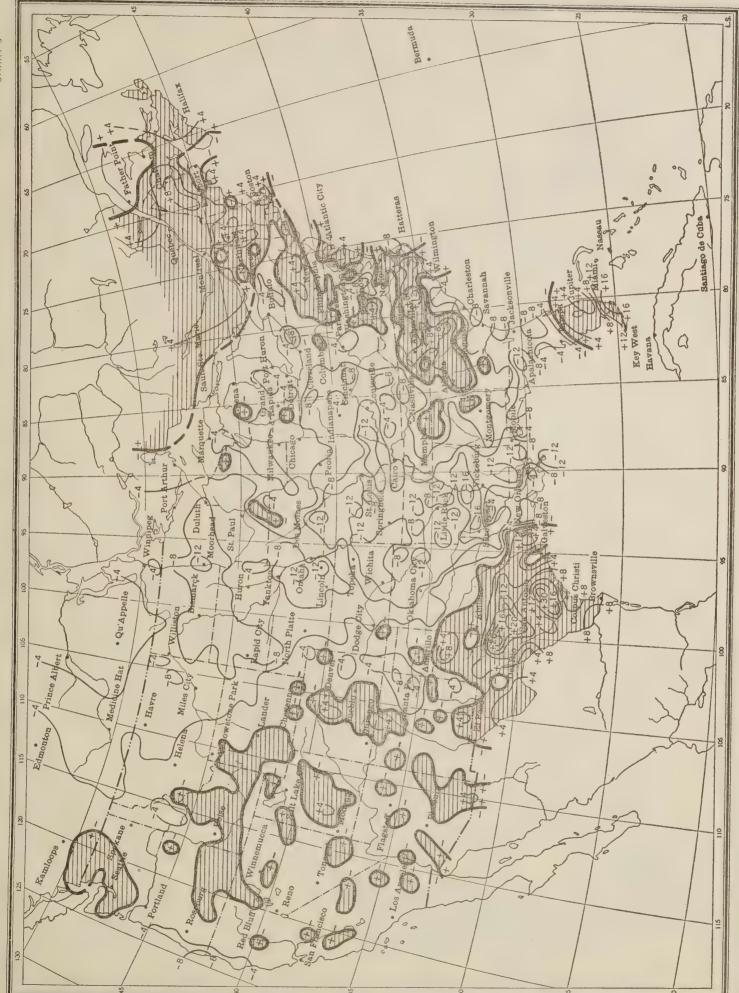
³ No diurnal correction applied.
³ By eye observation.



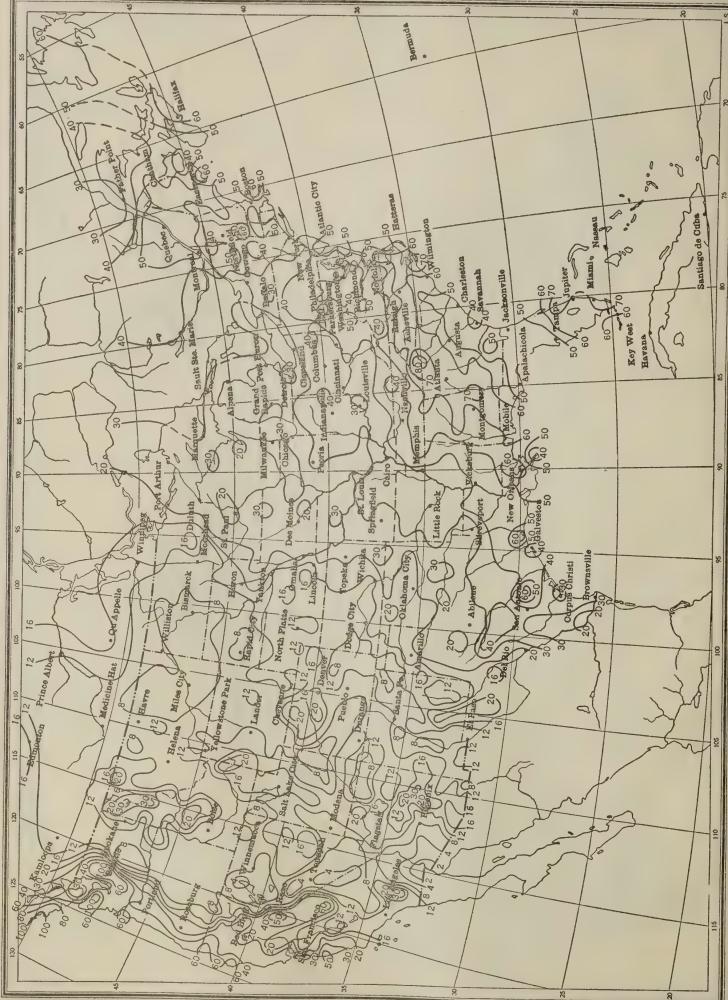
Shaded portions show excess (+) and unshaded portions deficiency (-) of temperature. Figures show mean daily excess (+) or deficiency (-) of temperature over areas bounded by light lines DEPARTURE FROM NORMAL TEMPERATURE, IN DEGREES FAHRENHEIT, FOR THE CROP SEASON OF 1936, MARCH 1 TO SEPTEMBER 30

157





Shaded portions show excess (+) and unshaded portions deficiency (-) of precipitation. Figures show, in inches, amount of excess or deficiency of precipitation over areas bounded by light lines DEPARTURE FROM NORMAL PRECIPITATION FOR THE CROP SEASON OF 1936, MARCH 1 TO SEPTEMBER 30



TOTAL PRECIPITATION, INCHES, FOR THE YEAR 1936

 $\bigcirc$ 



